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ABSTRACT

The 1992 component of Emergence of Vocational, Technical, and Occupational Education (E-VTO) focused on preparing strategic thinkers in vocational, technical, and occupational education (VTO) for building learning communities. The E-VTO seminar was one of the two seminars that comprised the VTO specialization of Nova University's doctoral program to prepare community college personnel. The seminar was offered during the Summer Institute. Students were provided with a study guide and two textbooks in the spring. They were expected to complete a learning contract, two assignments, and a paper before the Summer Institute. The Summer Institute included an opening speech that provided an overview and 10 structured roundtable discussions conducted by faculty on such topics as "Rethinking, Restructuring, Revitalizing." Concentrations in technology education and computer studies were planned for 1992-93. A concurrent Summer Institute theme session was "Developmental Tasks toward the 21st Century: Learning Communities of the Future," which focused on developmental tasks for Nova Communiversity II. Students at the Summer Institute developed "learning community" action plans which were presented at the closing session. Much of the "Rethinking, Restructuring, Revitalizing" discussion is summarized; handouts are provided. Appendixes include 24 references and correspondence and memos sent to students. The following seminar papers prepared by Summer Institute students are included: "The Emergence of the Technical Society," "Improving Postsecondary Vocational Education," "Intellectual Capital Formation, Technology and Distance Education," and "Developing a Three-Year Student-Success Program for International Students" (Donna Smith); "Refocusing of the Educational Process in Health Occupations at Sarasota County Technical Institute" (Deborrah Metheny); "Developing a Total Quality Learning Environment" (Karen Ziegler); and "Development, Implementation, and Evaluation of a Model for the Review of Associate in Science Degree Programs" (Brian Satterlee). (YLB)

ED351499

TOWARD THE 21st CENTURY: PREPARING STRATEGIC THINKERS IN VOCATIONAL, TECHNICAL, AND OCCUPATIONAL EDUCATION FOR BUILDING LEARNING COMMUNITIES

Cycle 1
1984 - 1985
Agents of Change

Cycle 2
1986 - 1987
Transformational Leaders

Cycle 3
1988 - 1989
Strategic Thinkers

Cycle 4
1990 - 1991
Restructuring Establishments

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Fall 1992

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TOWARD THE 21ST CENTURY: PREPARING STRATEGIC THINKERS IN VOCATIONAL, TECHNICAL, AND OCCUPATIONAL EDUCATION FOR BUILDING LEARNING COMMUNITIES

Abstract

Nova University was founded in 1964. The Ed.D. Programs for Higher Education (PHE) were started in 1972 with a focus on preparing community college personnel. That single program evolved into three areas of specialization: (a) Higher Education; (b) Adult Education; and (c) Vocational, Technical, and Occupational Education (VTO). The VTO specialization consisted of two seminars: Personnel - Human Resources Development (P-HRD) and The Emergence of Vocational, Technical, and Occupational Education (E-VTO). During the 1980s, PHE analyzed the format for the delivery of the specialization seminars. A new format was designed and implemented in 1984. The new format linked the specialization seminars to the Summer Institute. Students received materials and completed assignments prior to the Summer Institute (SI), participated in SI activities that consisted of theme and specialization sessions, and then produced a synthesis paper.

Each of the four two-year cycles is described in a paper. The 1984-1985 cycle dealt with **preparing agents of change** (ED 272 247). The 1986-1987 cycle had a focus on **preparing transformational leaders** (ED 290 860). The 1988-1989 cycle concentrated on **preparing strategic thinkers** (ED 319 882). The third cycle paper included a six year summative evaluation with recommendations for the next six years. The paper included a detailed plan for "Designing Information Age Learning Paradigms (DIALP)" and having an online option by cycle six in 1994-1995. Cycle 4 consisted of P-HRD in 1990 and E-VTO in 1991 and focused on preparing tranformational leaders who think strategically about **fundamental restructuring** of establishments created in the industrial era (ED 335 519).

E-VTO 1992 focused on preparing strategic thinkers in VTO education for **Building Learning Communities.**

* * * * * * * * *

AN EXCELLENCE BLUEPRINT

> We'll either move ahead to a high wage, high skill,
> high growth economy or we will be left behind...to
> compete with the Third World countries that call
> for little but strong backs and low wages.
>
> Governor Zell Miller, Georgia
> America 2000 Leadership Conference
> January 13, 1992

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Table of Contents

I. Background, 1972 through 1991 4
  a. Ultimate Purpose, Rational, and Format 4
  b. VTO Cycles 1, 2, 3, and 4, 1984 through 1991 ... 5
  c. Programs for Higher Education Initiatives 5
  d. Other Related and Relevant Initiatives. 6

II. Pre 1992 Summer Institute Activities 7
  a. Shaping The Emphasis 7
  b. Study Guide and Textbooks 7
  c. Learning Contracts and Activities............... 7

III. Summer Institute 8
  a. Opening Specialization Session 8
  b. Rethinking, Restructuring, and Revitalizing 8
  c. Technology Education and Computer Studies 24
  d. Developmental Tasks for Nova Communiversity II . 29
  e. Action Plan Development 41
  f. Closing Specialization Session 42

IV. Post Summer Institute 50

V. Outcomes: Output and Impact 52

VI. Conclusions 55

References.. 57

Appendices.. 59
A. Letters and Memos
B. Total Quality Concepts Applied to Strategic Planning
C. Proposals
D. Enrollment Management Systems
E. Ten Characteristics of an Assessment Program
F. Math, Science, and Technology
G. Tech Prep and Strategic Visioning
H. Donna Smith - Student Success for International Students
I. Deborrah Metheny - Refocusing Health Occupations
J. Karen Ziegler - Total Quality Learning Environment
K. Brian Satterlee - Program Review Research Project

* * * * * * * * *

Today, a modern telecommunications infrastructure is what the railroads were at the turn of the century. The communities that have information age systems will prosper and those that don't will become ghost towns. Likewise, those communities that take advantage of the relationship between telecommunications and socioeconomic factors will be assured of new jobs, growth, and a high standard of living.

Southern Bell

CREATIVE ORGANIZATIONAL PROTOTYPES

> I believe that there exists a possibility for a type of organization so fundamentally more creative than the traditional, authoritarian hierarchy that it is only dimly reflected, even in the most successful, current practitioners of new management principles.

Peter Senge. Sloan School of Management, Massachusetts Institute of Technology.

* * * * * * * * * *

Background, 1972 through 1991

Ultimate Goal, Rationale, and Format

The ultimate goal of graduate education is to design programs of preparation to promote improvement in the quality of education and training services that are provided in a variety of different contexts. In the late 1960s, Nova University developed a field-based doctoral program as a strategy to prepare individuals to become agents of change in the contexts in which they work.

The Programs in Higher Education developed field-based doctoral programs in 1972 that evolved into specializations in (1) higher education; (2) adult education; and (3) vocational, technical, and occupational education (VTO). The central focus was application of contemporary knowledge for the solution of problems. That simple concept altered the course of education reform, breaking the single model of the generation of new knowledge as the only legitimate form of "academic" pursuit. PHE shifted about one-third of the didactic instruction to demonstrated competence in application through practicums and a Major Applied Research Project (MARP). Today, P.L. 101-610 is subsidizing the U.S. to move in the direction of national and community service.

Core and specialization seminars were delivered in cluster sites throughout the U.S. Students acquire theory and research in core and specialization seminars and then apply the knowledge to problems in her/his workplace through practicums and a MARP. During the early 1980s, the Programs for Higher Education (PHE) critically analyzed the format for the delivery of the specialization seminars for the three specializations. A new format was designed and implemented for specialization seminars that linked them to the Summer Institute (SI). Students received materials in the winter, completed learning activities prior to the SI, participated in specialization seminar activities and SI activities, and completed a synthesis paper after the SI. Theory and research is related to practice in seminar papers and then applied to a problem through a practicum. One of four practicums must be completed in the specialization.

VTO Cycles 1, 2, 3, and 4, 1984 through 1991

The new format was used for "Personnel - Human Resources Development" in 1984 and "Emergence of Vocational, Technical, and Occupational Education" in 1985. An analysis of Cycle 1 yielded a paper entitled "Preparing Agents of Change in Vocational, Technical, and Occupational Education" (ED 272 247). P-HRD was offered again in 1986 and E-VTO was offered again in 1987. An analysis of Cycle 2 yielded a paper entitled "Preparing Transformational Leaders in Vocational, Technical, and Occupational Education" (ED 290 860). Cycle 3 consisted of P-HRD in 1988 and E-VTO in 1989 and yielded a paper that included conclusions drawn from three cycles and offered comments about preparing leaders who can **think strategically** about (a) transforming contemporary traditional establishments and (b) creating entirely new caring and learning paradigms appropriate for an advanced technological era (ED 319 882).

Cycle 4 consisted of P-HRD in 1990 and E-VTO in 1991 and focused on preparing tranformational leaders who think strategically about **fundamental restructuring** of establishments created in the industrial era (ED 335 519). The 1990 Summer Institute theme was "Leadership for Innovation and Change." The Cycle 4 report contains extensive material on leadership for two-day workshops on the same theme with one-half day allocated to (1) review of theory and research, (2) analysis, (3) visioning, and (4) action plan development. The 1991 Summer Institute theme was "Intrapreneurship in Postsecondary Education." The Cycle 4 report contains all materials and presentations made those two years and the papers by Polly Schultz in 1991.

Programs for Higher Education Initiatives

The Higher Education Director's Team held its first meeting in February 1988 and generated a list of things to do to improve PHE. Many of these things have been addressed and others will need continued nurturing. For example, in the past two years PHE has added many new faculty, cluster coordinators, local research advisors, practicum report evaluators, and MARP advisors. All faculty and staff need continuing development on content within core and specialization seminars, the links between theory and research with applications, how adults learn, alternative delivery systems, and policies and procedures. Two major changes in curriculum and delivery system hold the potential to achieve another major increment of growth toward solution based learning with Total Quality Commitment.

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Curriculum. A major curriculum change was made at the meeting of the Higher Education Director's Team in February 1990. The decision involved the (1) conversion of the VTO specialization seminar Personnel-Human Resources Development to the core seminar Human Resources Development beginning fall 1990, (2) addition of Leadership as a sixth core seminar beginning fall 1991, (3) addition of a VTO Trends and Issues specialization seminar for second year students beginning 1992, (4) elimination of Learning Theory, and (5) reduction of the number of practicums to four.

During the 1989 Summer Institute, Dr. Ross E. Moreton designated individuals as Practicum Report Evaluators (PRE). The practicum process was modified to involve PREs in the review of practicum proposals. PREs meet regularly to improve practicums through the leadership of James Lorion.

A Curriculum Integrity Committee comprised of Curriculum Coordinators of the six core seminars met for the first time prior to the 1991 SI to analyze seminar content. The group met a second time in February 1992, reviewed the "Policy on Study Guide Components," and reviewed the cycle for continuous upgrading of study guides. A Core Seminar Coordinator Description has been developed.

Six learning activity packages are being developed: Questionnaire Design and Administration, Literature Review Development, Development of a Case Study, Development of a Product, Qualitative Research in Adult and Higher Education, and Inferential Statistics.

Delivery System. Dr. Vesna Ostertag's MARP focused attention on student need for a multi-tech distant learning alternative. This alternative was endorsed at the HEDT meeting in February 1992. The Curriculum and Program Planning seminar is being offered during 1992-93 through a design which begins the seminar at the 1992 SI and concludes it at the 1993 SI. The multi-tech delivery system will use the electronic classroom, e-mail, and other technology.

Other Related and Relevant Initiatives

A "special" student designation was made available for VTO in 1989. Special student was defined as a person who would qualify for doctoral studies but would not necessarily want to pursue the degree. No one in that category participated in 1990. The concept was not marketed in 1991.

A **certificate** proposal is being developed that would recognize completion of a group of seminars.

A "Concept Paper for the Health Care Education Specialization" was distributed at the SI.

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Pre 1992 Summer Institute Activities

Shaping the Emphasis

Societal forces and responses and student diversity help to shape the emphasis of E-VTO. There are no accurate ways of predicting all the changes that will occur between the time the Study Guide is revised and textbooks are selected and the delivery of the specialization seminar. VTO students have extremely diverse backgrounds and work in quite different contexts: health and human services; business and industry; government and public service including the military; and education and training at secondary and all postsecondary VTO education levels.

Study Guide and Textbooks

Each student received the E-VTO 1992 Study Guide and the two textbooks during the spring term. The Study Guide contains two units on the period prior to the Sputniks, four units that could be labeled the **present**, and one unit on **anticipating the future**. The Study Guide contains appendices to assist students obtain resources that relate to their special area of research and scholarship. The two textbooks were Tech Prep Associate Degree by Dan Hull and Dale Parnell and Technology 2001: The Future of Computing and Communications edited by Derek Leebaert.

Learning Contract and Activities

Each student was expected to complete a learning contract by June 1, an elective assignment by June 15, an assignment on the studies about education by June 29, and a paper on "Intellectual Capital Formation" by July 13. A letter of welcome was sent to each student when the faculty member returned the learning contract. A Mid-June, Late-June, and July memo were sent to each student when the faculty member returned the evaluations for each assignment (Appendix A). The purpose of the memos is (1) to provide continuing information relative to the E-VTO seminar and (2) to supply additional information about resources that match student interests. Each student was expected to bring copies of several articles to the Summer Institute.

National Organizations

Information was obtained from national organizations for the students. These organizations included the American Association of Community and Junior Colleges; American Sociaty for Training and Development; National Institute for Staff and Organizational Development; ERIC Clearinghouse on Adult, Career, and Vocational Education; National Alliance of Community and Technical Colleges; and National Staff Development Council.

Summer Institute

Opening Specialization Session

Following the welcome and introductions, the faculty member provided an overview to **Building Learning Communities: Total Quality Commitment to Virtual Reality.** Attachment 1 provides an overview of the E-VYO schedule.

Research indicates that leadership consists of three activities: analyzing, visioning, and transforming visions into action plans. The first two assignments were intended to improve skills in analyzing. The third assignment on "Intellectual Capital Formation" was intended to improve visioning competencies. Sessions throughout the Summer Institute were intended to "Celebrate and Advance the Vision" and helped each student develop an action plan for a project unique to her/his workplace.

Each student completed a modified Myers Briggs test which yields planning preferences: strategic humanists, strategic thinker, pragmatic humanist, and pragmatic manager.

Rethinking, Restructuring, Revitalizing

"Rethinking, Restructuring, Revitalizing" was one of ten structured roundtable discussions conducted by faculty. The abstract read as follows:

RETHINKING, RESTRUCTURING, REVITALIZING
In an Era of Smart Homes, Wired Communities,
Intelligent Systems, Global Networks, and
Fast Forward Learners in a Borderless World

Numerous issues will be important in the 1990s. No issue will be more important, however, than developing bold, creative, visionary leaders who have the competencies and skills relative to **RETHINKING** about **RESTRUCTURING** for **REVITATIZING** industrial era establishments for the global information era of the 21st Century.

During the early 1980s, it became apparent that modernization of industrial era establishments was necessary, but insufficient. The manufacturing sector of the economy began to modernize through technology and planning, management, and evaluation know-how. Then, manufacturing began to restructure. So too, education and health care are beginning to restructure to improve access, quality, and productivity. America 2000, Tech-Prep, use of technology, and Total Quality Commitment/Leadership reflect this trend to create entirely new establishments.

* * * * * * * * *

Building Learning Communities
Total Quality Commitment to Virtual Reality
E-VTO 1992 Schedule

Spring - E-VTO Study Guide and Textbooks
Tech-Prep Associate Degree
Technology 2001
Welcome Letter, Mid June Memo, Late June Memo, July Memo

E-VTO Specialization & Summer Institute

Sun -	1:00- 3:00	Specialization
		Overview to BLC
		Modified Myers Briggs
		Small Groups - Rationale of Proposal
Mon -	8:00-10:00	Specialization
		Small Groups - Goals and Objectives
		TQC - Enrollment Management
		From analysis to application (practicum)
		Guidelines for Form and Style
		Guide to Practicum Process
	10:15-11:45	Structured Roundtable - 3 Rs
	2:30- 3:30	Faculty Office Hours
	3:45- 4:45	Structured Networking By Concentration
Tue -	8:00-10:00	Specialization
		Small Groups - Rationale & G-O (3 x 3)
		- Substantive Topic (Math, Sci, Tech)
		- Human Resource Development & TQC
		- Library and Information Services
Wed -	8:00-12:00	Specialization
		Small Groups - Methodology
		(OD + HRD + TQC, Library + Info Ser)
Thu -	8:00-10:00	Specialization
		Small Groups - TQ Evaluation & Budget
	10:15-11:15	Conf Theme - "Developmental Tasks"
	11:30-12:30	Faculty Office Hours
Fri -	8:00-10:00	Specialization
		Practicums, Comprehensive, & MARP
		Oral Presentations
		Small Groups -
	1:15- 2:45	Conf Theme - "Developmental Tasks"
Sat -	8:00-12:00	Specialization - Total Group
		Oral Presentations of Action Plans

Synthesis Paper - Sept 11 (Absolute Deadline is Oct 30)

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The presenter distributed a **Rethinking, Restructuring, Revitalizing** sheet on which participants were asked to record significant concept and implications. He indicated that the one and one-half hour session would be divided in roughly two equal parts, systems and humans, and that he would use a "Me - Thee" format with a few minutes of presentation followed by discussion and closure on both topics.

Systems. The presenter provided opening remarks about the need for **RETHINKING** Human Resource Development systems as the U.S. moves from the post-industrial era through the early technical era and into an advanced technical era. The **RETHINKING** process must include **TOTAL QUALITY COMMITMENT** to world class **BENCHMARKS**.

The education and training system that has evolved is primarily the result of mindset and principles of the industrial era and includes four "tracks" -- academic, vocational-technical, general, and dropout. The U.S. longitudinal study of 1982 indicated that of 100 students going through the contemporary traditional education pipeline, 11 graduated from the academic track, 34 from the vocational track, 31 from the general track, and 24 had dropped out. The dropout rate nationally is now 29% and in some inner city schools it reaches 60-65%. At the post-secondary level two-year colleges are the primary means for achieving equality of education opportunity as well as providing the critical mass of technicians for today's workplaces. Research has demonstrated that the classical academic approach to "modernized" education reform is insufficient, that VTO programs of high quality should be the program of choice and accessable for many people.

Education is a part of the "services" sector of the economy. During the early 1980s, it became apparent that modernization of industrial era establishments was necessary, but insufficient. The manufacturing sector of the economy began to modernize through technology and planning, management, and evaluation know-how. Then, manufacturing began to restructure. Education and health care are beginning to restructure to improve access, equality, quality, and productivity, while containing costs. Manufacturing makes up about 20% of the U.S. economy and increased productivity by approximately 3.5% and prices 3.1% in the 1980s. Service sector establishments constitute 50% of the economy and increased productivity by only 0.2% and prices by 5.2% in the 1980s. Services increased productivity by 0.6% annually between 1980 and 1986 and dipped 0.5% annually between 1986 and 1990 (Samuelson).

Absolutely essential in the RETHINKING process is a genuine "community" partnership to scan the environment to anticipate the future and then move from trend analysis to

RETHINKING, RESTRUCTURING, REVITALIZING

SIGNIFICANT CONCEPTS	IMPLICATIONS
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	

restructuring human resources development systems, to create entirely new full service caring and learning environments. Research indicates that leadership consists of three activities: analyzing, **VISIONING**, and translating visions into action plans. While progresing through the RETHINKING stage it is essential to envision "Info Era Learning Communities of the Future." Patterns that are evolving include restructured early childhood units that are blending services for the same client (The Same Client: The Demographics of Education And Service Delivery Systems, Hodgkinson, 1989). During the transitional years, alternative "choices" could include contemporary traditional education, partial technological or technology intensive deinstitutionalization, cooperative lifelong learning, solution based learning, and private sector education and training providers. Significant concepts and implications were discussed.

Humans. Significant attempts at classifying "types" of people and thinking patters include Urban (1909), Bougle (1926), Spranger (1928), Allport and Vernon (1931), Thurstone (1949), Gordon (1953, 1960, & 1967), Dodd (1957), Thomas (1967), Johansson (1976), Holland (1977), Knapp and Knapp (1978), Kolb, Gregoric, and Myers-Briggs. Gappert has modified the Myers-Briggs in an attempt to classify planning styles: strategic humanist, strategic planner, pragmatic humanist, and pragmatic manager. It is essential to deepen our understand of how we and others perceive the world.

Second, it is essential to better understand the evolving era and information literacy needed for solution based learning - data elements, sources of data, access to data, formats for data that are more likely to yield usable "intelligence" in creating solutions.

Third, it is essential to understand life centers, leadership, and transformational thinking. Life centers include self, family, work, and community. Leadership consists of three activities: analysis and evaluation, creative visions of the future, and transforming visions into action plans. Leadership occurs at three levels: self, organizational, and societial. Leadership involves an undestanding of societal problems, activities of leadership, tools of leadership such as strategic planning elevated to creative strategic thinking, organizational development, human resources development (as opposed to HR management), powerful thinking, and professional development. Transformational thinking comes from reframing, mindfulness, holistic thinking, creativity, cybernetic thinking, systems thinking, chaos theory, and military strategy. Significant concepts and implications were discussed.

Student Learning Outcomes & Multi-tech Delivery System. The ultimate goal of graduate education is to design programs of preparation to promote improvement in the quality of education and training services that are provided in a variety of different contents. That is to say, each PHE graduate should be able to demonstrate competence in creating an action plan that reflects the best in strategic thinking about some area of responsibility. The action plan would reflect the best research-based theory and practice. The plan would be derived from an understanding of theory and research about **Leadership** and the creation of visions and a preferred scenario with strategic directions for some project - writing across the curriculum, integration of math and science to solving problems, integration of academic and vocational tracks, vertical articulation between the layers of the bureaucratic contemporary traditional system. The project could then be more fully developed in **Governance and Management** by analyzing the governance structure and processes and specifying the organizational development (OD) components and in **Human Resources Development** by analyzing HRD needs and specifying the HRD action plan.

The multitech delivery system is underway in 1992-93 with the implementation of Curriculum and Program Planning. Ultimately, three core seminars should be offered one year and another three core seminars should be offered the second year. Participants were given a sheet on which to record recommendations on sequencing and asked to specify the logic and rationale. A total of 22 sheets was submitted. A "1" was assigned to the first seminar recommended in the sequence and a "6" to the seminar recommended to be last in the sequence. The results were as follow:

1st	Societal Factors	65 Points
2nd	Governance and Management	66 "
3rd	Leadership	70 "
4th	Research and Evaluation	73 "
5th	Human Resources Development	88 "
6th	Curriculum and Program Planning	99 "

Societal Factors and Research and Evaluation were selcted 1st most frequently. The logic and rationale reflects experiences of both 1st and 2nd year students with the current format rather than a set of principles upon which the multitech format can be structured.

Summary. Several regions of the world are rapidly transitioning from the industrial era through the early technical era and into the advanced technical era. Regions are restructuring their economies to be competitive in the 21st Century. Nations that want to prosper in the advanced technical era must adjust their **systems** and **human** resources development infrastructure to produce **knowledge workers** for the new information era. PHE is in the early stages of implementing a multi-tech delivery **system** for preparing **humans** to Build Learning Communities for developing the workforce for workplaces of the 1990s and beyond (Johnston and Packer). (Appendix B contains overheads).

RETHINKING, RESTRUCTURING, REVITALIZING

FROM POST - INDUSTRIAL ERA (PIE)

TO

EARLY TECHNICAL ERA (ETE)

TO

ADVANCED TECHNICAL ERA (ATE)

1970s 1980s 1990s 2000s 2010s

TOTAL QUALITY

- **COMMITMENT**
- **LEARNING**
- **INVOLVEMENT**
- **IMPROVEMENT**
- **EDUCATION**
- **MANAGEMENT**
- **CONTROL**

TOTAL QUALITY COMMITMENT

CONTINUOUS IMPROVEMENT OF QUALITY

CENTRAL FOCUS ON THE CONSUMER

SYSTEMATIC IMPROVEMENT OF OPERATIONS

OPEN WORK ENVIRONMENTS - ATMOSPHERE

LONG-TERM THINKING

HUMAN RESOURCES DEVELOPMENT

COORDINATION AND LEADERSHIP

Robbie Lee Needham. "Total Quality Management: An Overview." Leadership Abstracts. Laguna Hills, CA: League of Innovation, Vol. 4, no. 10, July 1991.

BENCHMARKING

QUALITY ***as good as*** **TOYOTA**

SERVICE ***as good as*** **NORDSTROM**

RESPONSE TIME ***as good as*** **FEDERAL EXPRESS**

SOCIAL RESPONSIBILITY ***as good as*** **J & J**

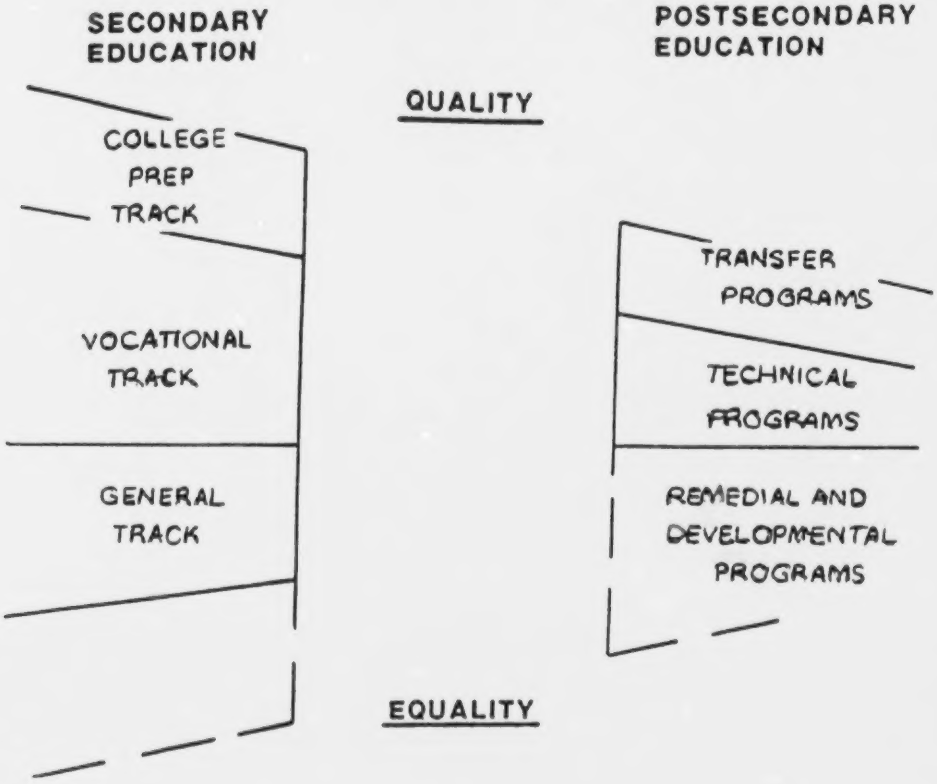
PRODUCT RESPONSIBILITY ***as good as*** **3M**

ADVERTISING ***as good as*** **BUDWEISER**

DISTRIBUTION SYSTEMS ***as good as*** **WALMART**

VISION ***as good as*** **SONY**

EQUALITY: DUAL MISSION PRIORITIES


SECONDARY EDUCATION
POSTSECONDARY EDUCATION
QUALITY
COLLEGE PREP TRACK
TRANSFER PROGRAMS
VOCATIONAL TRACK
TECHNICAL PROGRAMS
GENERAL TRACK
REMEDIAL AND DEVELOPMENTAL PROGRAMS
EQUALITY

PRODUCTIVITY: MANUFACTURING VS. SERVICES

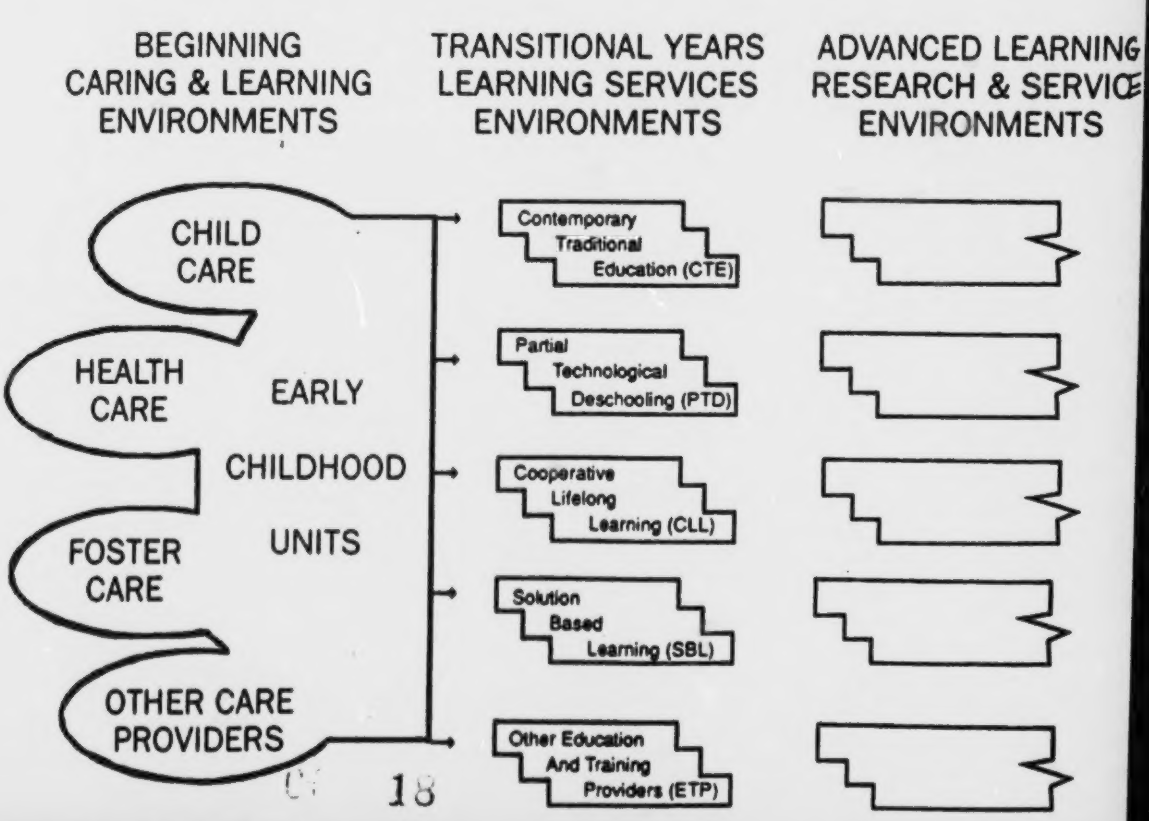
ESTABLISHMENTS	PERCENT OF ECONOMY	INCREASED PRODUCTIVITY 1980-1990	PRICE INCREASE
MANUFACTURING	20.0%	3.5%	3.1%
SERVICES	50.0%	0.2%	5.2%
	1980-1986	+0.6%	
	1986-1990	-0.5%	

Robert J. Samuelson. "A Shakeout in Services." Newsweek. Vol. CXVIII, No. 6, August 5, 1991, pp 64-65.

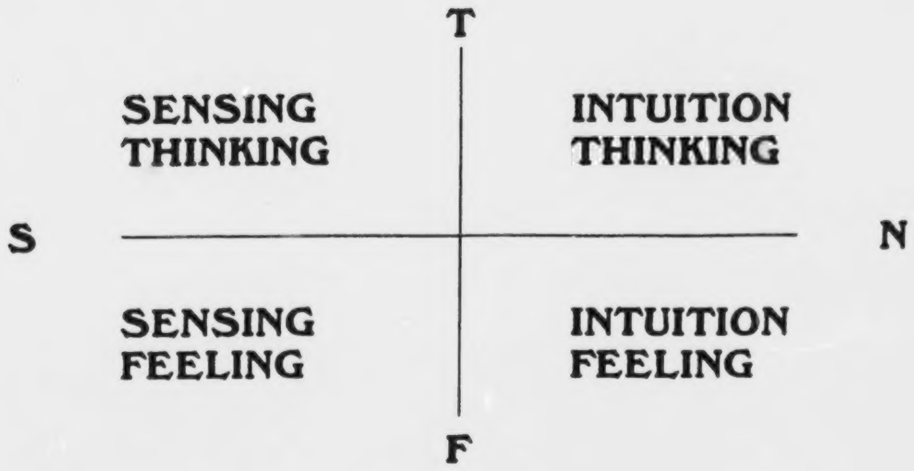
FROM TREND ANALYSIS TO RESTRUCTURING HUMAN RESOURCES DEVELOPMENT SYSTEMS

	1992-93	1993-94	1994-95	1995-96
Federal Laboratory Consortium				
Private Sector Research & Development				
Council on Competitiveness				
Depart of Labor SCANS				
Work In America				
Office of Technology Assessment				
Project 2025				
NSF Project 2061				
American Society for Training & Development				
Federal Library & Information Center				
Coalition for Networked Information				
Satellite Broadcasting				
National Technology Information Services				
NSFNET				
Offices of Ed Res & Improvement				
Trend Analysis Program				

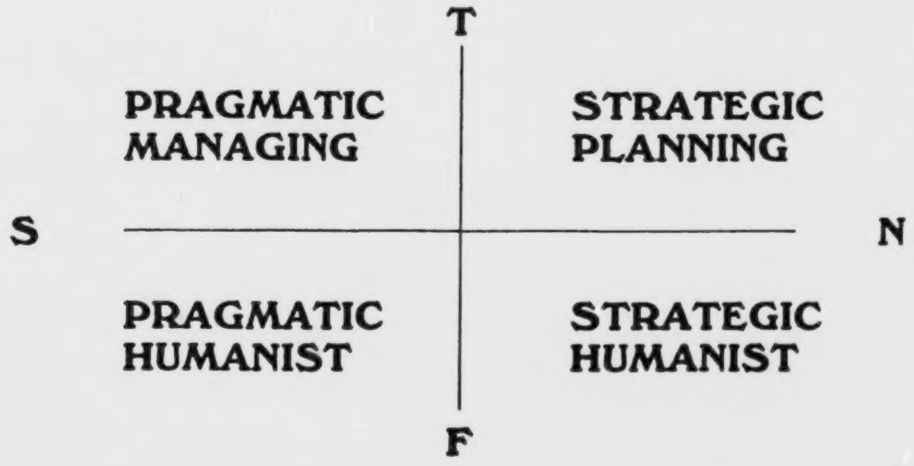
INFO ERA LEARNING COMMUNITIES OF THE FUTUR


BEGINNING CARING & LEARNING ENVIRONMENTS
TRANSITIONAL YEARS LEARNING SERVICES ENVIRONMENTS
ADVANCED LEARNING RESEARCH & SERVIC ENVIRONMENTS
CHILD CARE
HEALTH CARE
EARLY CHILDHOOD UNITS
FOSTER CARE
OTHER CARE PROVIDERS
Contemporary Traditional Education (CTE)
Partial Technological Deschooling (PTD)
Cooperative Lifelong Learning (CLL)
Solution Based Learning (SBL)
Other Education And Training Providers (ETP)

MYERS-BRIGGS TYPES


T
SENSING THINKING
INTUITION THINKING
S
N
SENSING FEELING
INTUITION FEELING
F

GAPPERT PLANNING STYLES


T
PRAGMATIC MANAGING
STRATEGIC PLANNING
S
N
PRAGMATIC HUMANIST
STRATEGIC HUMANIST
F

INFORMATION LITERACY NEEDED FOR SOLUTION BASED LEARNING

DATA ELEMENTS

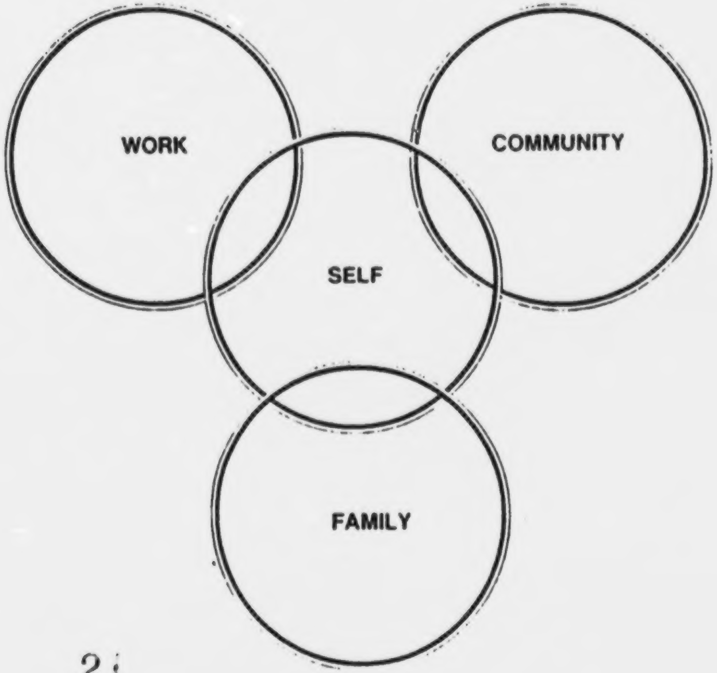
SOURCES OF DATA

ACCESS TO DATA

FORMAT FOR DATA TO YIELD INTELLIGENCE

SOLUTIONS

LIFE CENTERS


WORK
COMMUNITY
SELF
FAMILY

LEADERSHIP

ACTIVITIES

Levels	ANALYSIS AND EVALUATION	CREATIVE FUTURES VISIONING	TRANSFORM VISIONS TO ACTION
SELF			
ORGANIZATION			
SOCIETY			

LEADERSHIP

SOCIETAL PROBLEMS

LEADERSHIP

STRATEGIC PLANNING

ORGANIZATIONAL DEVELOPMENT

AND

HUMAN RESOURCE DEVELOPMENT

POWERFUL THINKING

PROFESSIONAL DEVELOPMENT

TRANSFORMATIONAL THINKING

REFRAMING

MINDFULNESS

HOLISTIC THINKING

CREATIVITY

CYBERNETIC THINKING

SYSTEMS THINKING

CHAOS THEORY

MILITARY STRATEGY

STRATEGIC THINKING: MAXIMUM SYNERGISM =

LEADERSHIP THROUGH

OD + HRD + TQC

Pre Program Audit	Year 1	Year 2	Year 3	Year 4	Year 5	Post Program Audit
Organizational Development						
Mission Primary Program Secondary Program Climate/Culture Institutional Effectiveness						
Human Resources Development						
Conceptual Interactive Technical						
Hoped for Outcomes	↔					Actual Outcomes

LEADERSHIP

THEORY AND RESEARCH

VISION AND PREFERRED SCENARIO

STRATEGIC DIRECTIONS

(ORGANIZATIONAL & HUMAN RESOURCES DEV COMPONENTS)

GOVERNANCE & MANAGEMENT	HUMAN RESOURCES DEVELOPMENT
AUDIT	AUDIT
VISION OF G & M	VISION OF HRD
ACTION PLAN	ACTION PLAN

MULTITECH DELIVERY SYSTEM

SUMMER		SUMMER		SUMMER
SOCIETAL FACTORS	X—X—X—X	SOCIETAL FACTORS		
CURRICULUM	X—X—X—X	CURRICULUM		
PROBLEM SOLVING METHODOLOGIES	X—X—X—X	PROBLEM SOLVING METHODOLOGIES		
		LEADERSHIP	X—X—X—X	LEADERSHIP
		GOVERNANCE & MANAGEMENT	X—X—X—X	GOVERNANCE & MANAGEMENT
		HUMAN RESOURCES DEVELOPMENT	X—X—X—X	HUMAN RESOURCES DEVELOPMENT

SUMMER				SUMMER
LEADERSHIP	VISION - SCENARIO X—X—X—X—X—X—X			X
GOVERNANCE & MANAGEMENT		X—X—X—X—X—X—X		X
HUMAN RESOURCES DEVELOPMENT			X—X—X—X—X—X	X

Technology Education and Computer Studies

Students could elect to concentrate within their specialization beginning fall term of 1991. The concentration enables students to demonstrate to colleagues and employers that they have undergone a rigorous doctoral program in depth as well as breadth. Students express their chosen concentration by including statements in at least three of their practicum reports, and in their MARP. Each student is encouraged to select and seek the counsel of a qualified professional in the approved concentration field who would serve as a mentor. The mentor would assist the student in becoming familiar with the literature in the field and serve as a role model. Students met for the first time by concentration at SI 1992. Potential is unlimited.

During 1992-93, **Technology Education (TE)** and **Computer Studies** (CS) will be defined more clearly. TE could include (a) the category of education as defined by the American Association of Vocational Education, (b) education to promote awareness and understanding of technology policy and the infrastructure to create advances in science, (c) the full range of technology to enhance learning and delivery of programs from basic research through development and evaluation, and (d) areas related to economic development such as technology transfer and workforce skill needs. CS includes all application of computers to enhance learning and instructional and administrative support.

During 1992-93, students will be asked to help **Build a Learning Community** for TE/CS. Students who want to be a part of TE and CS will be surveyed to determine their specific areas of interest and what they hope to obtain from networking. Each student will be asked to identify the publications they regularly read, the national organization with which they are affiliated and any leadership positions they hold, and the conferences and workshops they plan to attend. Each student will be asked to specify what s/he would be willing to contribute to the TE/CS network. The TE/CS Learning Community will share information about organizations such as the Coalition For Networked Information which is comprised of the Association of Research Libraries, CAUSE, and EDUCOM.

Currently, many first year VTO students are pursuing projects relating to technology. There are several students working on distant education delivery systems, one for nursing and a second for tech prep to cover one-third of a state. One student is working on tech prep for apprentices and a second is working on tech prep for special needs students. One student will analyze software packages for graphic arts and a second will analyze software packages for drafting. One student is working on a project at a college in the Consortium for Manufacturing Competitiveness of the Southern Technolgy Council (STC).

Some of the students may be interested in helping to contribute to the development of materials for use in the multi-tech delivery system. For example, assume Human Resources Development is the next seminar to be delivered through the multi-tech format. Students in TE/CS are most likely to participate in it and could provide valuable insights into matching technologies with HRD seminar and student learning outcomes. Students have ready access to vast resources through the electronic library and can share knowledge they generate. The electronic classroom makes it possible for new forms of collaboration, including sharing of information with students in other programs at Nova.

Students could be interested in technology policy, emerging technologies, research and development, existing and pending legislation, economic development, etc.

U.S. Technology Policy, Emerging Technologies: A Survey of Technical and Economic Opportunities, and Gaining New Ground by the Council on Competitiveness provide insight into strategy for economic development. Gaining New Ground states, "There is broad domestic and international consensus about the critical generic technologies driving economic growth." Critical areas include information technologies, computers and software, and telecommunications.

The U.S. has created a public and private research and development infrastructure that is unparalleled in history. The U.S. government alone funded $25 billion in R & D at 700 centers employing 100,000 scientists and engineers in 1991-92. The private sector investment in R & D is many times that amount and sometimes is geared for multi-national utilization. The intent is to create break-through science and technology, to distribute products and services more quickly than competition and to realize the benefits - jobs, standard of living, quality of life, profits, power, etc.

Competitiveness and economic development through technology is important to some students, particularly in the south. Halfway Home and a Long Way To Go considers five cross-cutting themes while examining the past, present, and future as a prelude to stating ten regional objectives. Leading The Way Into The Nineties describes how 13 technical and community colleges in the STC region enhance manufacturing competitiveness for establishments that nationally make up 20% of the U.S. economy. Turning to Technology provides a vision of what the region needs to do in education, technological innovation, and technological diffusion and concludes, "The community and technical colleges are perhaps the South's premier strength." The goal of The 1992 Commission on the Future of the South is to provide leaders of the South with a visionary but pragmatic plan for making this region globally competitive by (1) improving the quality of human resources; (2) strengthening business enterprises; and (3) creating state-of-the-art public infrastructure.

During the early 1980s, it became possible to begin to envision distant education systems that went beyond the site based constraints and begin to plan for the delivery of education and training into the home, workplaces, and community. At that time numerous institutions began to modernize through communication and information technology. A 1986 CAUSE publication entitled Computers Serving Students: The Community College Way edited by Judith W. Leslie profiled seven exemplary institutions. Dr. Leslie then developed a "Framework For Formulating An Institutional Technological Profile" (Attachment). In 1987, the author presented a conceptual framework of the "Components of the Human Resources Development System" to the Commission on the Future of Community Colleges of the American Association of Community and Junior Colleges (Attachment, ED 280 538).

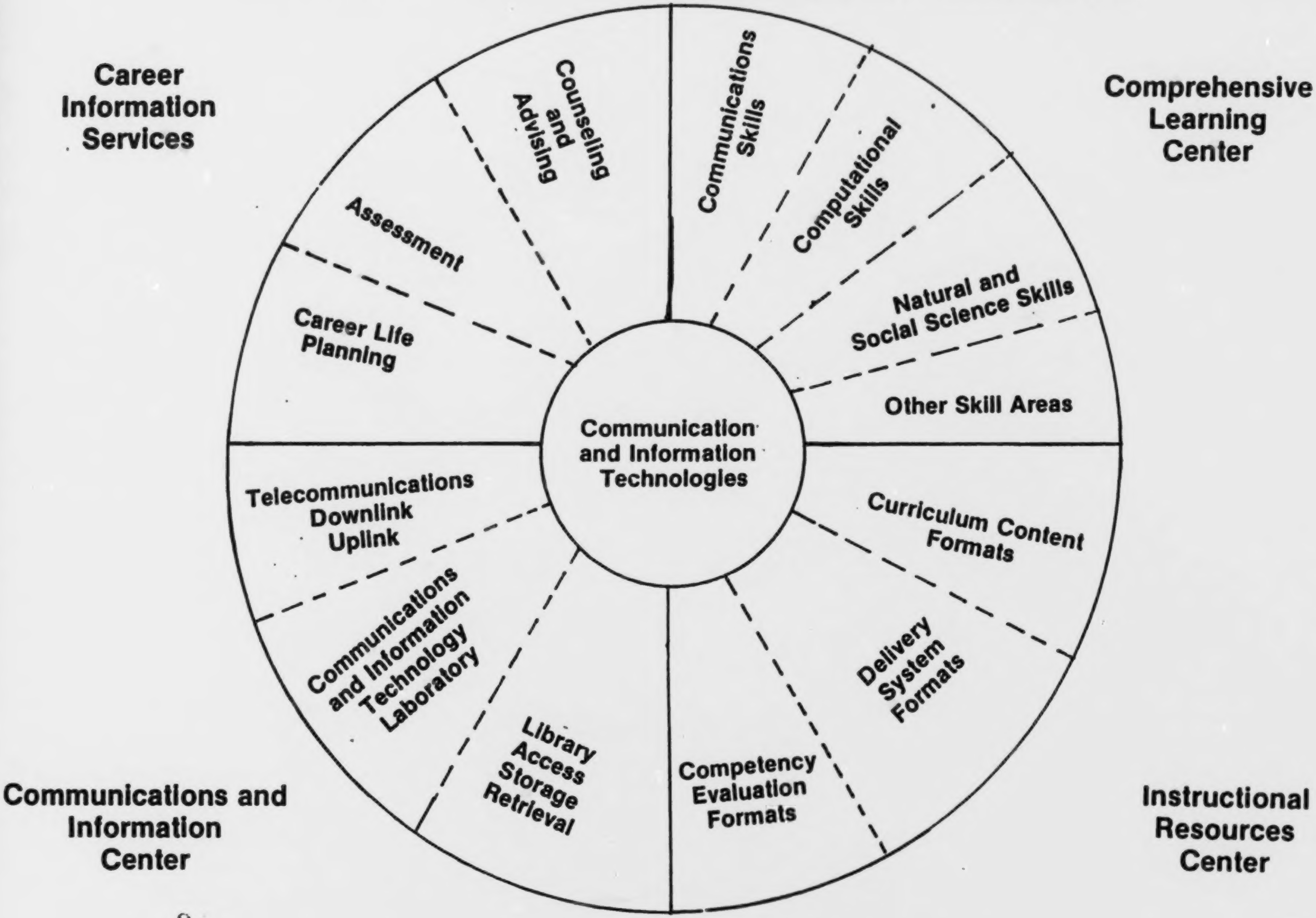
The library/media center is essential in the global networked era. The role of the library has changed dramatically in the last decade. The library and media center have been transformed into an information and technology hub that is already indispensable to students and staff. There is evidence that library and computing services organizations have begun to converge as the technologies used to store and transmit information become similar. Furthermore, there is evidence that the characteristics inherent in information combined with the technical capability provided by new information technology have created the prospect of a new range of possibilities. Distance is irrelevant. The data bases and expert systems can be accessed in a variety of settings -- workplaces, community agencies, or home.

The centrality of the library and information services is seen in numerous activities and projects. One example is the White House Conference on Library and Information Services for Productivity, for Literacy, and for Democracy was held in July 1991. The National Commission on Libraries and Information Science (NCLIS), with assistance from a 30 member Conference Advisory Committee, planned the White House Conference authorized under Public Law 100-382. The 50 states, District of Columbia and U.S. territories, as well as American Indian Tribes and federal library units conducted preconference activities to ensure widespread participation among their constituents to develop priorities. For example, Texas developed fact sheets for each of the three topics -- productivity, literacy, and democracy -- to assist in "Building Community Partnerships."

FRAMEWORK FOR FORMULATING AN INSTITUTIONAL TECHNOLOGICAL PROFILE

Institutional Function	**PHRASES OF TECHNOLOGY**				
	Phase One (Record Keeping	Phase Two (Communication)	Phase Three Creative Use of Information Technology; CA1, CAD/CAM	Phase Four (Decision-Making)	Phase Five (Artificial Intelligence)
Instruction	Select Applications Individualized Basis	Limited All-in-one Office Automation	Data Processing Curricula Faculty Literacy Program CA1, TICCIT, TEACH CAD/CAM, ESL		
Instructional Support	Library Automation Fitness Centers Laboratories	Library Automation	Laboratories		
Student Services	Student Information Systems FAMS Degree Audit Transcript Job Placement	Student On-line Registration CARL Electronic Articulation			
Institutional Port	HRS, FRS Budget Purchasing Alumni Maintenance	All-in-one Office Automation Videotext Upload/Download Telecommunications Training	Budget End-user Programming Training		

COMPONENTS OF A HUMAN RESOURCES DEVELOPMENT SYSTEM



Career Information Services

Comprehensive Learning Center

Communications and Information Center

Instructional Resources Center

Communication and Information Technologies

Counseling and Advising

Communications Skills

Computational Skills

Natural and Social Science Skills

Other Skill Areas

Curriculum Content Formats

Delivery System Formats

Competency Evaluation Formats

Library Access Storage Retrieval

Communications and Information Technology Laboratory

Telecommunications Downlink Uplink

Career Life Planning

Assessment

Developmental Tasks For Nova Communiversity II

"Developmental Tasks Toward the 21st Century: Learning Communities of the Future" was one of concurrent Summer Institute theme sessions presented on Thursday and Friday, July 30 and 31. The abstract read as follows:

DEVELOPMENTAL TASKS TOWARD THE 21ST CENTURY:
LEARNING COMMUNITIES OF THE FUTURE

The ultimate purpose of graduate and postgraduate education is to design programs to promote improvement in the quality of services that are provided in a variety of contexts and systems -- health and human services, business and industry, government and military, and education and training.

Nova University implemented practitioner oriented field-based doctoral programs in 1972. These programs have progressed through early developmental stages and must continue to evolve solution based learning and to assist communities and their institutions learn for adaptation. Tasks for "Communiversity II" and "Transformational Leadership II" will be presented to envision the conceptual framework of "Learning Communities of the Future."

* * * * * * * * *

Developmental Tasks For Nova Communiversity II. Samuel Gould defined communiversity as "A loose federation of all educational and cultural resources which exist to serve the citizens, society and economy in a community or well defined region" (Today's Academic Conditions, 1970). James MacGregor Burns drew the distinction between transactional and transformational leadership (Leadership, 1978). Transactional leadership occurs when individuals make contact for the purpose of the exchange of something. Transformational leadership involves mutual stimulation and elevation of attitudes, beliefs, and values. A university is intended to assist the society of which it is a part through the development of (1) new knowledge and its application to problems and (2) a workforce to help shape and function well in the emerging era.

PHE has a history of steady improvement in developing the field-based, practitioner-oriented, solution-based doctoral program. Each of the four two-year VTO cycles is described in a paper: **preparing agents of change, preparing transformational leaders, preparing strategic thinkers,** and preparing transformational leaders who can think strategically about **fundamental restructuring** of industrial era establishments through understanding the past, analyzing the present, and anticipating the future. Furthermore, HRD requires each student to analyze HRD in the context in which s/he works, develop a vision of the future for an project of interest, and then develop an HRD plan with conceptual, interactive human relations, and technical skills.

One significant advance in the developmental sequence is the collaboration between PHE and Mercer County Community College, NJ. Research has demonstrated "value added" to an individual for completion of advanced degrees. Nova has ample evidence in the number of graduates, their leadership positions, and their contributions to society. The Programs for Higher Education began a project to demonstrate value added to an institution by a group of students. Several employees from Mercer County Community College enrolled in the Philadelphia Cluster in Fall 1990. The students completed Societal Factors in fall and then enrolled in Human Resources Development in the winter. A discussion with President Hanley in February 1991 led to a "Proposal for a Cooperative Project" in April between MCCC and PHE.

Phase I consisted of the completion of a "plan to plan" document while the students were enrolled in Governance and Management, and for which the eight students received credit for a practicum. A strategic planning workshop for MCCC students and employees was conducted by on June 11. Each participant received a workbook of strategic planning materials. Each PHE student developed a statement about various aspects of the strategic planning model. The students met several times between June 11 and the 1991 PHE Summer Institute to develop ideas that were reviewed with MCCC leaders. The students met with Dr. Phyllis Cooper, Philadelphia Cluster Coordinator, and Warren Groff at the 1991 Summer Institute to review process and documentation.

A draft "plan to plan" was reviewed with the group of students on September 27. Revisions were made and reviewed with MCCC leadership. A revised document entitled the Mercer County Community College Strategic Planning Model was reviewed with students and MCCC leadership on November 22. In addition, a collaborative practicum report was reviewed which documents the process and the collaborative learning experience. The collaborative learning experience had the added advantage of dealing with the primary function of a postsecondary educational institution -- organizational learning for adaptation to change through the technology of strategic planning. The students received credit for a practicum in Governance and Management.

Phase II consists of implementing the strategic planning process. Implementation should yield strategic directions which will form the basis for other practica and Major Applied Research Projects. Phase III will consist of evaluating the impact of the practica and MARPs on MCCC. Appendix C contains Total Quality concepts applied to the strategic planning function.

Nova University developed a practitioner oriented field-based doctoral program in early childhood in 1972 which was extended to include the study of middle childhood in 1974. The program in Early and Middle Childhood formed the basis for the program in Child and Youth Studies which was implemented in spring of 1989. CYS begins with Leadership I and concludes with Leadership II three years later. CYS was first offered to Cluster 34 in Ft. Lauderdale between April 1, 1989, and March 14, 1992. Cluster 37 which began on October 14, 1989, and Leadership II which concluded on June 6, 1992. CYS implemented the first multi-tech National Cluster in February 1991 and the second multi-tech National Cluster in February 1992.

The developmental sequence in Child and Youth Studies is noteworthy. Leadership I includes an analysis of work context and problems, a review of theory and research on transformational leadership and an introduction to strategic planning as a prelude to the specification of a Professional Development Plan (PDP) for the duration of the CYS program. Leadership II consists of synthesis and evaluation, creation of a vision and strategic directions for some project, and the specification of PDP II for implementation after graduation. PHE could emphasize a PDP at the start of the program, strengthen visions creation, and conclude with something like a PDP II.

It is absolutely essential that educational policy makers do a better job of anticipating the future through visions creation and co-creation either through trend extrapolation or through dreams of equality and quality. Communities could create Trend Analysis Councils to better anticipate demographic, social, economic, and technological change. Educational institutions could help facilitate strategic thinking processes for Building Communities and Neighborhoods and would result in a plan for focused areas such as health, learning, culture, work, and the arts.

New techniques must be developed for scenario creation. In consultancies and institutes on strategic planning in the early 1980s, consensus was reached on qualitative improvements and then visions were created for **expansion**, **steady state**, and **contraction** scenarios. Than, in the mid 1980s the visions phase was shifted to **contemporary traditional**, **partial technological**, and **technology intensive** scenarios. An "Alternative Education" analysis for a state department of education led to the classifications of contemporary traditional education (CTE), partial technological deschooling (PTD), cooperative lifelong learning (CLL), and solution based learning (SBL). In the late 1980s, the visions phase was shifted to create CTE, PTD, CLL and SBL scenarios. One institution created such scenarios after teams were divided into groups based on Gappart Planning Styles: strategic humanists, stratetgic planners, pragmatic humanists, and pragmatic managers. The pragmatic humanists created a scenario to deliver its remedial and developmental services into communities, homes and workplaces through contemporary technology. The strategic humanists created a solution-based health occupations program modeled after some of those that exist in medicine. The experience, however, was only the first step and stopped short of the sequential co-creation activities that must occur with other providers for **Building Communities and Neighborhoods.**

Challenge for Nova Communiversity II

The 1950s and 1960s were **expansion** decades. The 1970s and 1980s were **modernization** decades. This is the decade of **fundamental restructuring** that could lead to **"Learning Communities of the Future"**. The establishments and communities that form a federation committed to learning to adapt to the new era through co-creation of visions of of the advanced technical era the 21st Century, transformation, will be the beneficiaries of the new age.

Nova altered the course of education reform through its commitment to developing a practitioner-oriented doctoral program. The collaborative partnership with Mercer County Community College is a demonstration of the application of knowledge to **Build a Learning Community** within an establishment, a **SYSTEMS** model of **RETHINKING, RESTRUCTURING, REVITALIZING.** CYS provides insights about the **HUMAN** dimension of leadership competencies and skills development relative to a specific projects, many of which were on science and technology. Nova holds the potential to pioneer strategies for **Building Communities and Neighborhoods** through partnerships with a broad range of establishments through technical assistance, variable length workshops, or certificates of PHE or CYS program components delivered in traditional or multi-tech distant delivery formats.

A second idea that holds even greater promise is the Interdisciplinary Postgraduate Diplomate (IPD) Program. The IPD idea was an outgrowth of a discussion between a former director of Head Start and this author in 1986, the former approaching the idea from the perspective of the need to link multiple providers to the child and family and this author approaching the idea from the perspective of interestablishment collaboration. The U.S. is evolving through a period of realigning and restructuring separate establishments. Policies, programs, and the current workforce were developed during an era of expansion with a little emphasis on modernization. As this nation shifts from independent establishment modernization to inter-establishment realignment and restructuring, there will be an increased need for a 21st Century IPD modeled somewhat after the Federal Executive Institute and other programs.

DEVELOPMENTAL TASKS FOR

NOVA COMMUNIVERSITY II:

TRANSFORMATIONAL LEADERSHIP II

TO

"LEARNING COMMUNITIES OF THE FUTURE"

TOWARD THE 21st CENTURY: PREPARING STRATEGIC THINKERS IN VOCATIONAL, TECHNICAL, AND OCCUPATIONAL EDUCATION FOR RESTRUCTURING ESTABLISHMENTS

Cycle 1
1984 – 1985
Agents of Change

Cycle 2
1986 – 1987
Transformational Leaders

Cycle 3
1988 – 1989
Strategic Thinkers

Cycle 4
1990 – 1991
Restructuring Establishments

HUMAN RESOURCES DEVELOPMENT

1. AUDIT HRD

MISSION
PHILOSOPHY
POLICIES
FUNCTIONS
BUDGET

2. VISION

STRATEGIC DIRECTION
PREFERRED SCENARIO
ORGANIZATIONAL DEVELOPMENT PLAN

3. HRD PLAN

CONCEPTUAL SKILLS
HUMAN RELATIONS SKILLS
TECHNICAL SKILLS
BUDGET

EVOLUTION OF VOCATIONAL, TECHNICAL, AND OCCUPATIONAL (VTO) EDUCATION

UNITS PAST

1. Evolution of VTO Education In America
2. Vocational Education In the Industrial Society

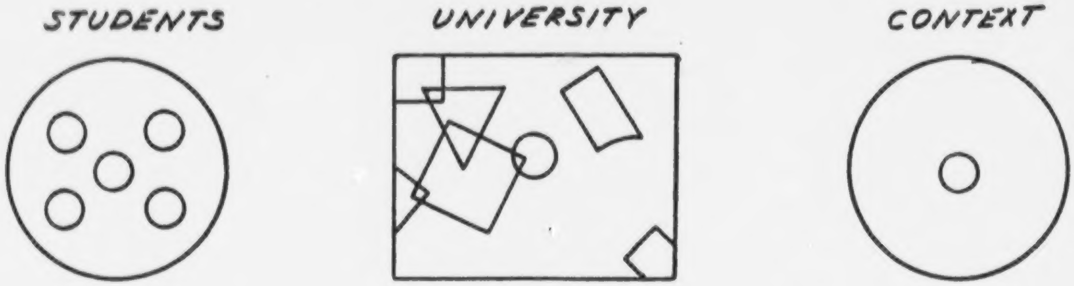
PRESENT

3. Redesign of the Education System
4. Emergence of the Technical Society
5. Economic Development and Revitilization
6. Studies About Education

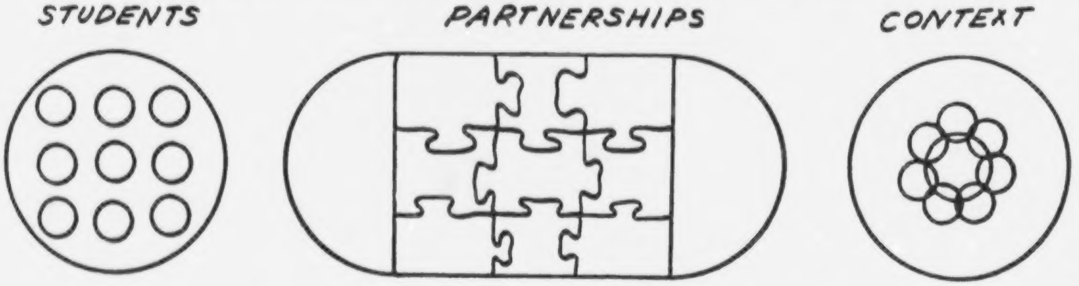
FUTURE

7. Intellectual Capital Formation

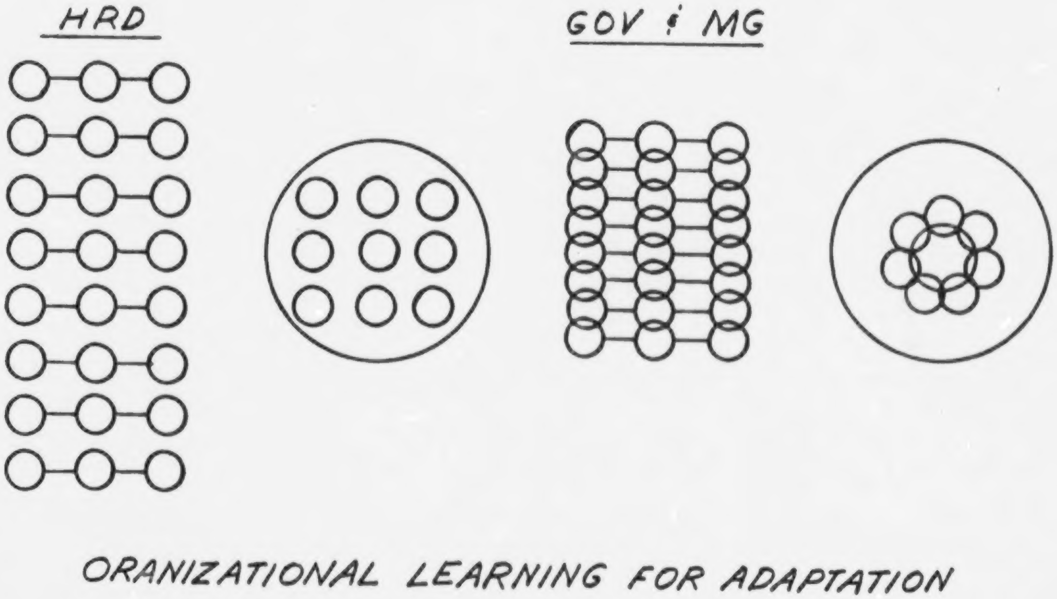
GRADUATE PROGRAMS OF THE PAST


STUDENTS
UNIVERSITY
CONTEXT

GRADUATE PROGRAMS OF THE FUTURE


STUDENTS
PARTNERSHIPS
CONTEXT

VALUE ADDED THROUGH COLLABORATIVE LEARNING



ORANIZATIONAL LEARNING FOR ADAPTATION

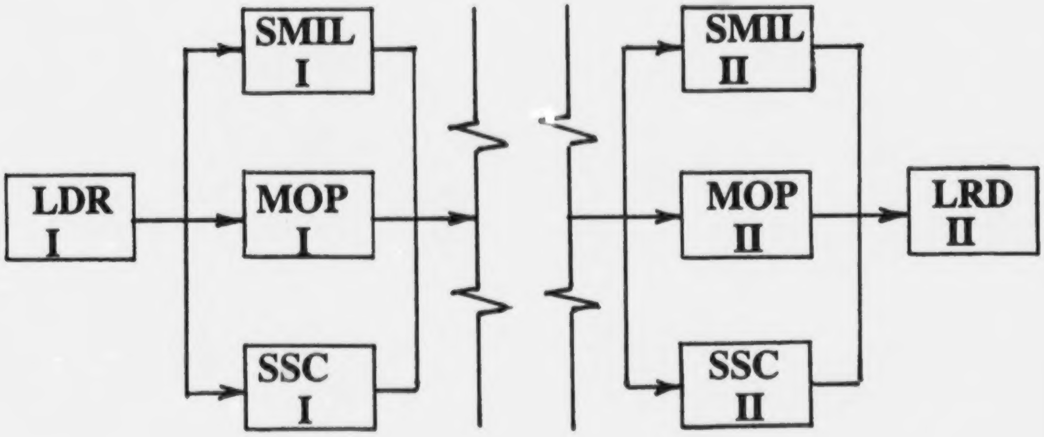
FORMATIVE EVALUATION

LEADERSHIP I
Work Context & Problems
Transformational Leadership
Tool - Strategic Planning
Professional Development

SELF
WORK CONTEXT
CYS PROGRAM

LEADERSHIP II
Synthesis & Evaluation
Visions & Strategic Directions
Professional Development Plan II

OUTCOMES: OUTPUT


LDR I
SMIL I
MOP I
SSC I
SMIL II
MOP II
SSC II
LRD II

VALUE ADDED I

VISIONS

PAST	TODAY	21st CENTURY
1940s - 1980s	1990s	2000 - 2020

TREND

--->

EXTRAPOLATION

DREAMS & VISIONS

<--

EQUALITY & QUALITY

TREND ANALYSIS COUNCIL

DIRECTORS OF RESEARCH AND DEVELOPMENT

UNITED WAY OF AMERICA

LIBRARY AND INFORMATION SERVICES

ECONOMIC DEVELOPMENT REPRESENTATIVES

AMERICAN SOCIETY FOR TRAINING AND DEVELOPMENT

WORLD FUTURE SOCIETY

DEPARTMENT OF LABOR

CENSUS BUREAU

OFFICE OF TECHNOLOGY ASSESSMENT

BUILDING COMMUNITIES AND NEIGHBORHOODS

PRELIMINARY	EARLY FALL	LATE FALL	EARLY WINTER	LATE WINTER	SPRING
Plan to Think Strategically	Internal Audit	External Assessment	Alternative Scenarios	Preferred Scenario	Strategic Plan
Plan of Action					
Scope of Work		Demographic	Contemporary		1. Health
Levels of Analysis		Social	Traditional		
Org. Structure		Economic			2. Learning
Planning Room					
Materials		Establishments & Jobs (Workforce)			
Research			Partial		3. Culture
Data Books		Technology	Technological		
Communications					4. Work
Retreats					
Workshops - Technology		Global Change	Technology		5. Arts
Format of Products					
Focus on Creativity		Impact	Intensive		

STRATEGIC PLAN

FOR IMPROVED QUALITY OF LIFE

	YEAR 1 RAISE AWARENESS	YEAR 2 AROUSE INTEREST	YEAR 3 DEVELOP UNDERSTANDING	YEAR 4 INCREASE COMMITMENT	YEAR 5 TOTAL DEDICATION
HEALTH					
LEARNING					
CULTURAL					
WORK					
ARTS					

CREATING VISIONS

AND

ALTERNATIVE SCENARIOS

OPTION 1

Expansion

Steady State

Contraction

OPTION 2

Contemporary Traditional

Partial Technological

Technology Intensive

OPTION 3

Contemporary Traditional

Partial Technological - Technology Intensive

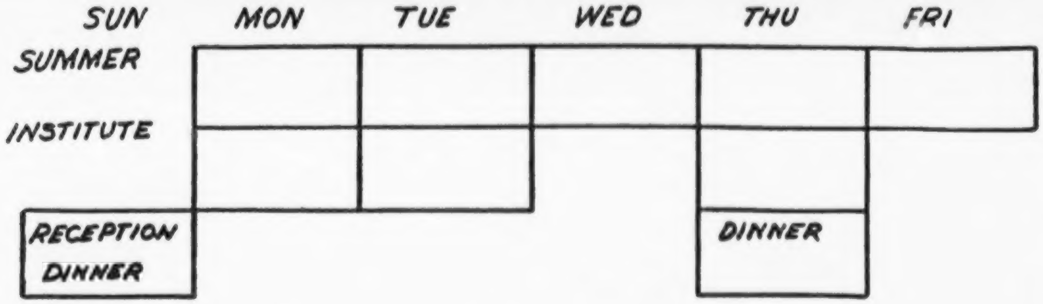
Cooperative Lifelong Learning

Solution Based Learning

TOWARD LEARNING COMMUNITIES OF THE FUTURE

EARLY 1990s		MID 1990s		LATE 1990s
Conditions of Society Trend Analysis & Extrapolation	⇨	Conceptual Frameworks 1. CTE 2. PTD 3. CLL 4. SBE	⇨	Design & Experiment Phase

INTERDISCIPLINARY POSTGRADUATE DIPLOMATE (IPD)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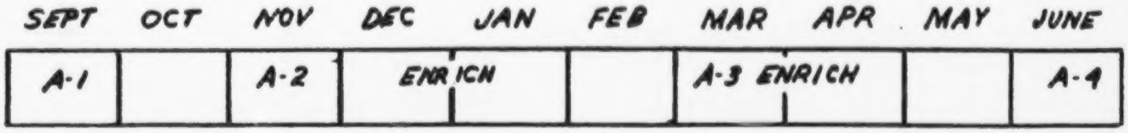
INSTITUTE
RECEPTION DINNER
DINNER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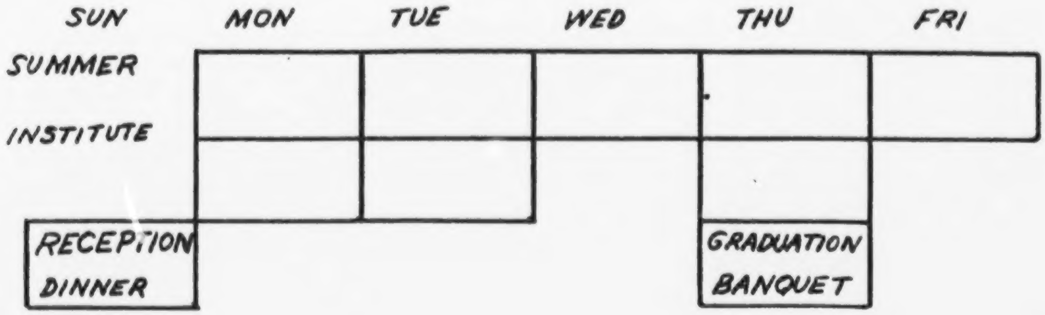
ENRICH
A-3 ENRICH
A-4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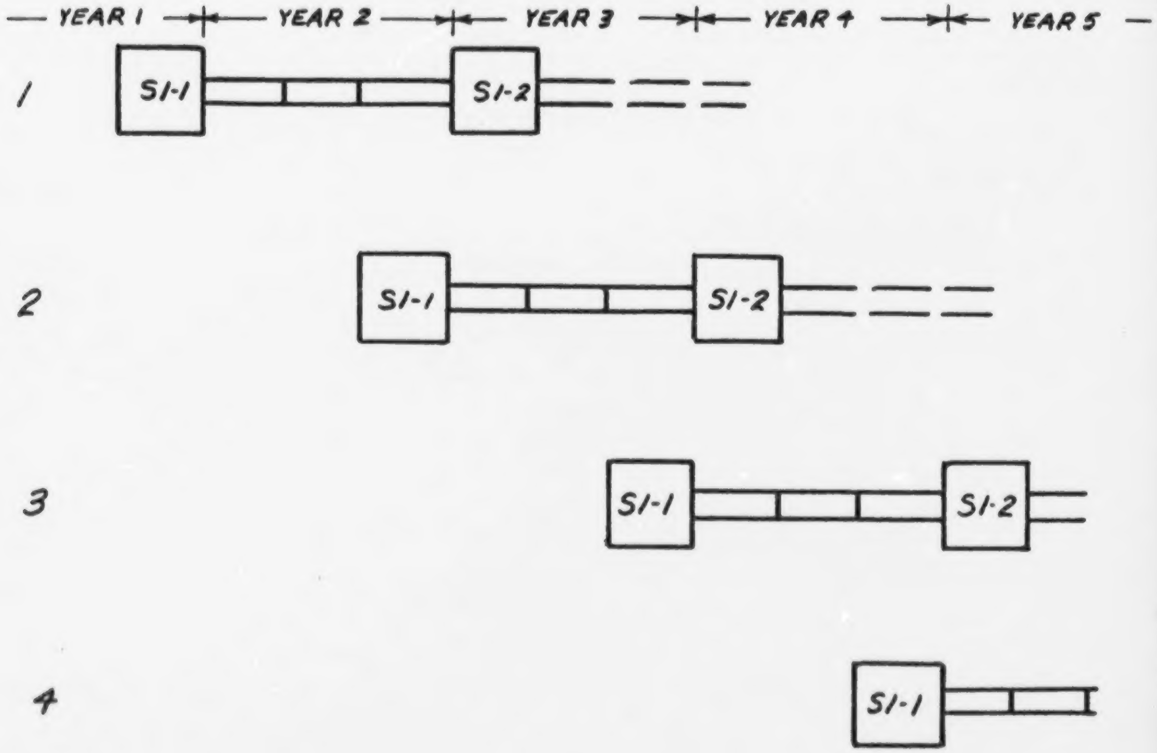
RECEPTION DINNER
GRADUATION BANQUET

MULTI-YEAR PLAN FOR IPD


YEAR 1
YEAR 2
YEAR 3
YEAR 4
YEAR 5
1
SI-1
SI-2
2
SI-1
SI-2
3
SI-1
SI-2
4
SI-1

Action Plan Development

E-VTO requires each student to undertand the past, to analyze the present, and to anticipate the future. During the SI, each student was able to attend theme sessions on "advancing the vision" and specialization sessions on action plan development for a project for which s/he has some responsibility. Total Quality Commitment was emphasized.

The Sunday specialization session highlighted the components of an action plan (1) rationale - why, (2) goals and objectives - what, (3) methodology - how, (4) evaluation and (5) budget. This session highlighted the need to have a clear **mission, vision,** and sense of **strategic directions.** Materials were distributed from national organizations.

The Monday session was the author's presentation on **RETHINKING, RESTRUCTURING, REVITALIZING** so that VTO students were able to attend another "Roundtable."

The Tuesday session was on goals and objectives. Each student was given an example of an "Enrollment Management System" and "Ten Characteistics of an Assessment Program" by the North Central Association of Colleges and Schools. Enrollment Management is a classic example for applying TQ concepts to services for clients and provides an opportunity to discuss the concept of functional analysis. The Late-June memo contained information about 20 student affairs functional standards and guidelines developed by the Council for the Advancement of Standards. (Appendices). Students joined a small group to discuss rationale and goals.

The Wednesday session was on methodology. Each student was given examples of Tech-Prep, a "Multi-year Plan for Human Resources Development: Mathematics, Science, and Technology Applications in the Workplace" which is modeled after the PHE SI format and VTO specialization, and a set of objectives for Goal 4 of America 2000 - "Multi-year Plan for Math-Science for Undergraduate and Graduate Education." The role of the library/media center was emphasized. Libraries are being transformed into a technology and information hub that is indispensable to students and service providers, a vital link to the community, and the core of Building Learning Communities. A brief statement was provided about strategic planning for a community college association and a health science center. Groups collaborated on methodology.

The Thursday session was on "Developmental Tasks" so that VTO students could attend other SI theme presentations. The Friday session was on evaluation and budget and how to make the five minute oral presentation on Saturday. Comments were also made about practicums and the MARP. Attached is a TQC list on practicum development. Appendices contain a list of VTO and HRD practicums since fall 1989.

Closing Specialization Session

Opening Remarks. The Summer Institute (SI) theme was "Celebrating and Advancing the Vision" and built on the 1990 SI theme "Leadership for Innovation and Change" and the 1991 SI theme on "Intrapreneurship." E-VTO 1992 was structured around a two part conceptual framework. Part I consisted of a process to **RETHINK** human resource development before we **RESTRUCTURE** and **REVITALIZE** The Learning Enterprize (Carnevale, 1989). Part II consisted of translating the output of the **RETHINK** process in terms of human, organization, and leadership development. The intent is to alter the course of reform by creating a communiversity on the ideas of a solution based, consumer controlled, computer centered, multi-tech, distant services delivery system.

Action Plan. Each student presented her/his "learning community" action plan and recorded significant concepts and their implications on 3R sheets during the presentations. Presentations were on the development of a strategic plan for a child care center at a two-year college, warranty programs, tech prep, Total Quality Leadership, distant education, computer assisted learning, and numerous high tech areas such as drafting, graphic arts, and Computer Integrated Manufacturing Systems. Tech prep presentation included apprenticeship training, distant education delivery system, and special population needs. Additional comments about action plans are in the next section.

Closing Remarks. Healthy America: Practitioners for 2005 (1992) indicates that leadership must create a vision, validate clinical practice, improve linkages, provide for career mobility, and renovate accreditation. These leadership challenges apply to all persons involved in eduction and training as the U.S. continues the shift from site based schooling to "Learning Communities of the Future." Industrial era schools and colleges were preeminent at a time when the U.S. only needed about a quarter of its population with high school diplomas and a very few people with college degrees. In "Learning Communities of the Future," any location holds the potential to be a learning environment - an extention of Any Home A Campus (Halperin) through The Education Utility (Gooler). Leadership will require an understanding of the past, an analysis of the present, and, most important, competencies in **anticipating the future** to be able to deal with issues of access, cost, productivity, quality, restructuring, revitalizing, synchronizing, and thinking globally.

* * * * * * * * * *

One cannot cross the ocean
without losing sight of the shore.

UNIVERSITY

COMMUNIVERSITY

GLOBALVERSITY

UNITY OF PURPOSE
CHALLENGE

TO DESIGN AND PERFECT
THE HUMAN RESOURCES
DEVELOPMENT SYSTEM TO
PRODUCE KNOWLEDGE WORKERS
OF THE 21st CENTURY
WHO HAVE ZERO DEFECTS

GOALS

To **RETHINK** ***the partnership for human development***

To **RETHINK** ***the partnership from an organiztional development perspective***

To **RETHINK** ***the partnership from a leadership development perspective.***

TOWARD THE 21st CENTURY

PART I	PART II
RETHINK	HUMAN
RESTRUCTURE	ORGANIZATION
REVITALIZE	LEADERSHIP

VISION:

THINKING STRATEGICALLY ABOUT THE 21st CENTURY

INTRAPRENEURSHIP

IN THE ERA OF
SMART HOMES
WIRED COMMUNITIES
FAST SYSTEMS
GLOBAL NETWORKS
FAST FORWARD LEARNERS
A BORDERLESS WORLD

TRANSACTIONAL MANAGEMENT

VS

TRANSFORMATIONAL LEADERSHIP

TRANSFORMATIONAL

LEADERSHIP II

RETHINKING, RESTRUCTURING, & REVITALIZING

	1992-93	1993-94	1994-95
MISSION ATTAINMENT			
FUNCTIONAL RELATIONSHIPS			
QUALITATIVE IMPROVEMENTS			
HUMAN RESOURCES DEVELOPMENT			

COMPETITION

COLLABORATION

COMMUNITY
(REGION SERVED)

AUDIT

- HISTORICAL DATA
- PROJECTIONS

VISIONS

- ALTERNATIVE SCENARIOS
- PREFERRED SCENARIO

ACTION PLAN

- INFRASTRUCTURE
- LEADERSHIP - HUMAN RESOURCES DEV.

2020

1. SOCIETY
2. WORK
3. EDUCATION

TQC

ERAS

PAST

PRESENT

FUTURE

ISSUES

ACCESS
COST
PRODUCTIVITY
QUALITY
RESTRUCTURING
REVITALIZING
SYNCHRONIZING
THINKING GLOBAL

ISSUES

1. **TOOLS**
2. **INTELLECTUAL CAPITAL**
3. **WILL**

Post Summer Institute

Background

From 1984 through 1991, first and second year students in VTO met together at the SIs. The number of VTO students increased from eight to 44 students in 1990. A curriculum decision involved the (1) conversion of the VTO seminar Personnel-Human Resources Development to the core seminar Human Resources Development beginning fall 1990, (2) designation of the Emergence of VTO for first year students, and (3) addition of a VTO Trends and Issues specialization seminar for second year students beginning 1992.

Action Plans

Twenty-two first year students attended the 1992 SI. Action plan titles were as follows:

"A Strategic Plan for Determining the Competencies Required in Desktop Color Electronics Prepress" - Richard Bundsgaard

"Implementing A Drafting Curriculum Concentration Relative To Tech Prep at Buchholz High School, Feeder Schools, and Santa Fe Community College" - Matt Coleman

"A Future Worker" - Joan Crews

"Action Plan for the Mechanical and Industrial Technologies Department" - Alden P. Gaudreau

"Upgrading the Quality of Instruction and Teacher Selection in Vocational Education" - Francie L. Grossman

"The Integration of Tech Prep and Student Apprenticeship" - Patrick Wayne Ephriam

"The Evaluation of the Implementation and Integration of Tech Prep into Person County Schools with Emphasis on Preparing Each Student" - Jenny Perry Horton

"A Central School Model for Health Science Programs at the Southern Alberta Institute of Technology" - Brian Larson

"Strategic Plan for a Child Development Program at Okefenokee Technical Institute" - Chris Loftin

"A Proposal on Training Faculty for Start-up Courses Using Distance Learning" - Bonnie L. MacGregor

"A Refocusing of the Educational Process in Health Occupations at Sarasota County Technical Institute" - Deborrah R. Metheny

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"Development Plan for Distance Education at Northern Main Technical College" - Terrence H. Overlock, Sr

"Developing a Three-Year Student-Success Program for International Students" - Dona D. Smith

"The Promise of Tech Prep" - Howard L. Thomas

"A Proposal for a South East Saskatchewan Small Business Project: A Study of Human Resources Development of Small Rural Business" - Arthur Whetstone

"Assessment of the Moultrie Area Technical Institute Business Education Machine Transcription Course to Determine if it is Meeting the Needs of the Neglected Majority" - Katherine F. Williams

"A Plan to Implement a Career Develpment Program for Students at Salisbury High School" - Betty Jo Wimmer

"Developing A Total Quality Learning Environment" - Karen Ziegler

"The Division of Vocational Rehabilitation (Maryland) And The Future" - Arthur M. Brown

"Implementation of Interactive Video Technology in Continuing Education for Health Care at Sarasota County Technical Institute" - Dianne G. Comstock

Seminar Relatedness to Work Context

Each student is expected to demonstrate application of research and exemplary practice to problems in her/his work context. Problems in the work context are content- and process-centered as well as person- and system-focused. Examples of content-centered problems include competencies of desktop publishing and tech-prep programs. Examples of process problems include distance learning and total quality learning environment. Examples of person-focused problems include student success and small business HRD. Examples of system problems include a central school model for health science programs and tech-prep distance learning.

Many students build the series of learning experiences into a E-VTO practicum. Many students report positive impact on work context.

Outcomes: Output and Impact

The National Center for Higher Education Management Systems did an exhaustive study on outcomes and classified them essentially as two major types: **output** of the establishment and **impact** on society. The output of VTO includes papers and related proposals produced in seminars, ideas that are turned into practicums, and ideas that become Major Applied Research Projects.

Seminars

The author has taught 69 sections of doctoral seminars throughout the U.S. to almost 1300 students. Some ideas developed in seminars do produce practicums and MARPs.

Practicums

The author has served as a VTO practicum evaluator since September 1989 and a HRD practicum evaluator since the seminar was implemented beginning fall 1990.

As of August 10, 1992, 70 HRD practicum proposals have been reviewed and 49 reports have been accepted. In VTO, 49 proposals have been reviewed and 43 reports have been accepted (17 of 18 in P-HRD and 26 of 31 in E-VTO).

Major Applied Research Projects

The author has served as a MARP advisor since winter 1990. Brian C. Satterlee began a MARP on **program review** on May 1, 1990, and completed it on May 18, 1991. He made a presentation to VTO students at the 1991 SI and distributed the "MARP Year Process," "Abstract," and a few sheets of related materials (Appendices).

Steven B. Dowd began a MARP on **strategic planning** between a college and hospital on November 15, 1991, and completed it in September 1992. He made a presentation to VTO students at the 1992 SI. Development Of A Future-Based Strategic Plan For A Radiography Program was an elaboration of "A Human Resource Development Action Plan for the Rafiography Program Sponsored by Lincoln Land/St. John's Based on a View of the Radiographer of the Future," a HRD practicum that will appear in a future issue of Outstanding Educational Improvement Projects.

MARP Advisors met in May. Recommendations were reviewed at the SI. There is an intent to match more closely student topic with MARP committee.

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Total Quality Commitment
Building Learning Communities
E-VTO 1992

	5	4	3	2	1	NA
Spring - E-VTO Study Guide & Textbooks						
Tech-Prep Associate Degree						
Technology 2001						
Welcome Letter and Memos						
E-VTO Specialization & Summer Institute						
Sun Specialization						
Overview to BLC						
Modified Myers Briggs						
Small Groups - Rationale of Proposal						
Mon Specialization						
Structured Roundtable - 3 Rs						
Faculty Office Hours						
Structured Networking By Concentration						
Tue Specialization						
Enrollment Management: Student Success						
Substantive Topic (Math, Sci, Tech)						
Human Resource Development & TQC						
Small Groups - Rationale & G-O (3 x 3)						
Wed Specialization						
Org Dev + HRD + TQC						
Library + Info Ser						
Small Groups - Methodology						
Thu Specialization						
"Developmental Tasks"						
Faculty Office Hours						
Fri Specialization						
Practicums, Comprehensive, & MARP						
How To Make Oral Presentations						
Small Groups - TQ Evaluation & Budget						
Sat Specialization - Total Group						
Oral Presentations of Action Plans						
Synthesis Paper - Action Plan						

Key

5	Absolutely Essential	2	Nice to Know, But
4	Extremely Important	1	Minimal Importance
3	Somewhat Important	NA	Not Applicable

EVALUATION

1. What topic(s) was/were of greatest value to you and why?

2. What topic(s) was/were of least value to you and why?

3. Would you change something? In what way? Why?

4. Comment on the way in which I handled the seminar?

Conclusion

The world is undergoing fundamental restrucutring. The European Community, the Pacific Rim countries, and the North American Common Market are adjusting their economies in order to be the dominant region in the new world order. The nations, regions, and states that will be the beneficiaries of the structural change will be the ones that adjust and restructure **systems** and **human** resources development infrastructure to produce **knowledge workers** for the new information era.

The United States was preeminent in the 1940s and 1950s. The U.S. generated 75% of the Gross World Product, produced 50% of the machine tools, had a per capita income twice that of the next closest nation, and enjoyed the highest national standard of living. Today, the U.S. generates 20% of the GWP, produces 10% of the machine tools, ranks 9th in per capita income, and the quality of life for many people has fallen significantly. Infant mortality in the U.S. is below that of several underdeveloped nations.

The U.S. was preeminent primarily because of its mindset about **creativity** and **inventiveness** relative to industrial era principles and their application to other institutions, particularly establishments in the social infrastructure such as education and training and health and human services. The U.S. created a research and development infrastructure and a mass public education system to provide the critical mass of intellectual capital and the workforce for the workplaces of the industrial era.

When U.S. preeminence was challenged through the launching of the Sputniks in 1957, President John F. Kennedy announced a **systems** and **human** resources development program to focus research and development on science and technology to compete in space race and possibly wage a hot war. When the announcment was made, the U.S. had not invented or discovered all the knowledge necessary to "push" the nation into the modernization era of the 1970s and 1980s. President Lyndon B. Johnson added a great society program and started education reform. Nova University led the way and altered the course of education reform by committing itself to inventing systems in which doctoral candidates demonstrated and documented the application of new knowledge as a legitimate form of "academic" pursuit.

The **restructuring** challenges of the 1990s are far more complex than the **expansion** of the 1950s and 1960s or the **modernization** of the 1970s and 1980s. The winner of the high skill and high growth economy will be beneficiary of high quality of life. The challenges are greater than converting a workforce familiar with radio technology to cellular technology or landing a man on the moon and returning him safely to earth. The conversion will require a "future pull" of mind and will, coupled with scientific know-how and technology (Land). The manufacturing and service sectors of the economy will restructure at an increasing rate in the 1990s. The areas that want to be the beneficiaries of the new economic order will create a future pull toward Learning Communities of the 21st Century and restructure social infrastructure establishments to produce knowledge workers for that global information era based on anticipation, innovation, and excellence (Barker).

Nova can lead in restructuring of **human** resources development infrastructure through **systems.** The basic foundation is in place with the programs in the Abraham S. Fischler Center for the Advancement of Education. Child and Youth Studies was restructured and began its first cluster with the regular format in 1989 before implementing two clusters in the multi-tech format. PHE restructured and significantly upgraded its basic program and has now implemented the multi-tech delivery system. PHE is in a strategic position to move beyond the traditional method of delivering the entire doctoral program in the regular and regional formats. There must be hundreds of persons who are qualified to do doctoral study who cannot access graduate programs or do not want to take an entire program. VTO graduate programs are being phased out because of low enrollments, high costs, and reduced state revenues. The special student category could allow any qualified student to participate. Certificates would allow the delivery of a package of seminars to an establishment to Build a Learning Community.

Perhaps more important, however, Nova could commit itself to inventing a Communiversity. It could accept a challenge such as "To design and perfect the human resources development system to produce knowledge workers of the 21st Century who have zero defects." While not all the knowledge is available to invent such a system, the words have a "future pull" magnatism to them that suggests that a community of scholars with expertise in theory, research, and applications should be able to create bold, visionary graduate models with increased excellence, somewhat akin to The Edison Project and the New American Schools Development Corporation Project. In so doing, Nova would commit itself to achieving the Malcolm Baldrige National Qaulity Achievement in Education for Service & Technology Transfer.

* * * * * * * * * *

Problems cannot be solved at the same
level of consciousness that created them.

Albert Einstein

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APPENDICES

A. Letters and Memos

B. Total Quality Concepts Applied to Strategic Planning

C. Proposals

D. Enrollment Management Systems

E. Ten Characteristics of an Assessment Program

F. Math, Science, and Technology

G. Tech Prep and Strategic Visioning

H. Donna Smith - Student Success for International Students

I. Deborrah Metheny - Refocusing Health Occupations

J. Karen Ziegler - Total Quality Learning Environment

K. Brian Satterlee - Program Review Research Project

* * * * * * * * * *

A "Third Wave" Electronic College

Judith W. Leslie uses Toffler's The Third Wave to develop an educational institution in an advanced technical era dominated primarily by electronic media.

> This methodology would allow the learner to proceed at his/her own rate and style, within his/her own time period, at his/her desired location, drawing upon learning materials from throughout the country and the world. Computer science and electronics courses and programs of study would be an integral part of the curriculum. Faculty would be cross-trained in a variety of disciplines and teaching styles. They would have flexible work schedules and loads and might share an assignment with a spouse or colleague. Many faculty would instruct from their home or electronic cottage....
>
> Judith W. Leslie. "As The Third Wave Approaches Higher Education: Planning For the Electronic Institution," CAUSE/EFFECT, January 1981, Vol. 4, No. 1, p. 15.

1531 Peabody Avenue
Memphis, TN 38104
June 1, 1992

U. R. Visionary
Distant Learning Progressive Establishment
Vanguard, Space 20001

Dear U.R.

Welcome to E-VTO 1992. I trust you are having a good year and making excellent progress on Nova activities.

The Study Guide is an overview of E-VTO which leads to your contract. Enclosed is a signed copy of your contract. Please complete the "Personal Data Variables" and "Student Progress" sheet and sent it to me with your next mailing. Save articles which relate to your area of concentration or focus. You will be expected to bring ten copies of a few articles for distribution to fellow students in the small group you will join at the Summer Institute.

Because the program policy requiring the use of APA becomes effective October 1, 1992, you may elect to use either the PHE Guidelines for Form and Style or APA. You may switch, electing to write some papers with PHE and then using APA.

E-VTO and the 1992 Summer Institute will be very exciting. Research indicates that leadership consists of three primary activities: (1) analyzing and evaluating, (2) creating visions of the future, and (3) transforming visions into multi-year action plans. Some of your E-VTO papers will be on analysis and evaluation. Your Unit VII paper will be on creating a vision of the future. Summer Institute sessions will help clarify visions of the future. E-VTO sessions at the Institute will focus on developing action plans.

I want to express my enthusiasm in working with you. We are living in a historical era. We did not live during the transition from an agricultural era to an industrial era. We are living, however, during a global, economic, structural transition with greater and more far reaching implications. We have the opportunity to provide creative visionary leadership. I look forward to working with you.

Sincerely,

Warren H. Groff
901-725-5287

Mid-June Memo, E-VTO 1992

The specialization seminars were integrated into the summer institute in the Programs for Higher Education beginning in 1984. I taught P-HRD in 1984 and E-VTO in 1985, then wrote **Agents of Change** (ED 272 247); P-HRD in 1986 and E-VTO in 1987, then wrote **Transformational Leaders** (ED 290 860); and P-HRD in 1988 and E-VTO in 1989, and then wrote the summative evaluation **Strategic Thinkers** (ED 319 882). **Strategic Thinkers** includes a few thoughts about delivery of VTO through a distant education format.

Restructuring Establishments (ED 335 519) includes all materials for P-HRD 1990 and E-VTO 1991. P-HRD 1990 was integrated into the summer institute theme "Leadership For Innovation and Change." In addition to specialization seminar materials, the document contains my summer institute presentation "Vision: Thinking Strategically About the 21st Century" and the research for the "Leadership for Innovation and Change" conference - seminal research on leadership, analysis of societal context, analysis of systems, vision, and action plan resources. E-VTO 1991 was integrated into the summer institute theme "Intrapreneurship in Postsecondary Education." In addition to specialization seminar materials, the document contains my presentation "Intrapreneurship in an Era of Smart Homes, Wired Communities, Fast Forward Systems, Global Networks, and Fast Forward Leaders in a Borderless World."

Polly Schultz did outstanding work in E-VTO 1991. Her learning contract papers were focused on the secretarial curriculum and consisted of papers on "Redesign of the Education System," "The Emergence of the Technical Society," "Studies About Education," and "Intellectual Capital Formation." Polly produced a set of "Relevant VTO Materials;" synthesized significant concepts and implications from her papers; and projected demographic, social, economic, technological, governmental planning, and values change for the 1990s. She participated with the "Business Group" in the specialization seminar sessions and helped produce a comprehensive action plan. She wrote an excellent synthesis paper of her learning experience.

* * * * * * * * * *

Collect articles that match your interests. Unit VII will require you to project variables through the 1990s. You should focus on variables related to you concentration. If your concentration is HRD, what technologies will be used in **workplaces** and what competencies will the **workforce** need? If your focus is a multitech alternative education delivery system, what technologies can be used to enhance student learning outcomes and increase productivity?

WORKPLACE

Quality leader notes U.S. edge in service

By Kevin McKenzie
The Commercial Appeal

Training in the service industry is a key to national economic health, and the United States is ahead of the rest of the world in recognizing its importance.

That was one of many insights offered Tuesday by internationally known management consultant Peter F. Drucker in a telecast from George Washington University in Washington.

About 65 people viewed his wide-ranging talk at State Technical Institute of Memphis. Presented by the Mid-South Quality-Productivity Center, it was the fifth and final telecast featuring some of the best-known advocates of total quality management, a companywide process that requires focusing on customers and empowering employees.

Drucker is a consultant, author and professor of social science and management at Claremont Graduate School in Claremont, Calif.

The productivity of employees in manufacturing industries long has been a concern in the United States and other industrialized economies. Similar concern, Drucker said, should be placed on workers in service industries, such as health care, food service and banking.

The cost of not doing it right the first time is the greatest cost there is, he said.

In addition to training service-industry workers more, managers should shift the focus of training from entry-level employees to training those with experience, perhaps two or three years on the job. Drucker said experienced workers have acquired knowledge necessary for the job, and training can mold their skills to make effective team players in the organization.

Among his other observations, he suggested focusing on important parts of jobs and avoiding bureaucracy.

COMMERCIAL APPEAL, MAY 20, 1992 B4

Drucker suggested asking "What are you paid for?" or "What's needed to enable productive work to be done?" to help focus energy.

Bob Jeter, vice president of strategy for Kraft Food Ingredients in Memphis, was one of the telecast viewers. He said Drucker's tip on focusing on important work and avoiding bureaucracy would stick with him.

"Paperwork and reports and meetings and things like that, sometimes those will be important," Jeter said. "A lot of times those are kind of less value-added."

The United States is ahead of other countries in recognizing the need for attention to improving performance in the service sector, Drucker said. In Japan, where total quality management has helped manufacturers such as Toyota become world-class leaders, the service in areas such as health care and banking is worse than in the United States.

In addition to starting work on productivity in the service sector, Drucker said managers in the United States are more willing than their counterparts elsewhere to listen to experienced people who know their jobs the best.

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Cycle 1
1984 – 1985
Agents of Change

Cycle 2
1986 – 1987
Transformational Leaders

Cycle 3
1988 – 1989
Strategic Thinkers

Cycle 4
1990 – 1991
Restructuring Establishments

by

Warren H. Groff
National Lecturer
Programs for Higher Education
Nova University
August 1991

DOCUMENT RESUME

ED 335 519 CE 058 736

AUTHOR	Groff, Warren H.
TITLE	Toward the 21st Century: Preparing Strategic Thinkers in Vocational, Technical, and Occupational Education for Restructuring Establishments.
PUB DATE	Aug 91
NOTE	299p.; For related documents, see ED 272 247, ED 290 860, and ED 319 882.
PUB TYPE	Reports - Research/Technical (143) -- Information Analyses (070)
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IDENTIFIERS	Nova University FL; *Strategic Planning

ABSTRACT

This report describes how Nova University started the Ed.D. Programs for Higher Education with a focus on preparing community college personnel. The Vocational, Technical, and Occupational Education (VTO) specialization consisted of two seminars: Personnel--Human Resources Development (P-HRD) and Emergence of VTO. The program focused on preparing transformational leaders who think strategically about fundamental restructuring of establishments created in the industrial era. The seminars were offered in a format linked to the Summer Institute (SI). Students received materials and completed assignments prior to the SI, participated in SI activities that consisted of a theme and specialization sessions, and produced a synthesis paper. Related activities included workshops and practica. Following the eight-page report are these appendixes: (1) P-HRD materials, including a resource manual with readings, practicum and research project ideas, proposal development and evaluation protocols, and sources of information; (2) E-VTO materials; (3) titles of VTO and HRD practica undertaken as related activities; and (4) materials from the "Leadership for Innovation and Change" workshop. A postscript provides information on the author. The following student seminar papers by Polly Schultz are provided: "Redesign of the Education System"; "The Emergence of the Technical Society"; "Studies about Education"; Intellectual Capital Formation"; "Relevant VTO Materials"; and "Intrapreneurship in Postsecondary Education." (YLB)

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Late June Memo, E-VTO 1992

Most of you are doing outstanding work and are on schedule. The Unit VII assignment is a bit more complex than the first two assignments, but absolutely essential. Appendices C, D, and E contain information and examples of PHE student work.

The following organizations are relevant to VTO:
National Center on the Educational Quality of the Workforce
4200 Pine Street, The Univesity of Pennsylvania
Philadelphia, Pennsylvania 19104-4090   215-898-4585

Center on Education and Training for Employment and the
ERIC Clearninghouse on Adult, Career, & Vocational Education
The Ohio State University, 1900 Kenny Road
Columbus, Ohio 43210-1090   800-848-4815

National Center for Research in Vocational Education
University of California at Berkeley
2150 Shattuck Avenue, Suite 600
Berkeley, CA 94704-1306   415-642-4004

The Nat. Council for Staff, Program and Org. Dev.(NCSOD)
Community College Leadership Program
The University of Texas at Austin, EDB 348
Austin TX 78712   512-471-7545

The Center for Occupational Research and Development (CORD)
and National Coalition of Advanced Technology Centers
601-C Lake Air Drive
Waco, TX 76710   800-772-8756

National Staff Development Council
P.O. Box 240
Oxford, OH 45056   800-727-7288

Call 1-800-222-4922 and ask to be placed on the mailing list to receive the U.S. Dept. of Ed. Office of Educational Research and Improvement OERI Bulletin

You may want the National Science Foundation "Bulletin."
NSF, Washington, DC 20550.   202-357-7555.

Call 1-800-872-5327 and ask for a copy of America 2000.

New American Schools Development Corporation
1000 Wilson Boulevard, Suite 2710
Arlington, VA 22209   703-908-9500

The Edison Project
333 Main Avenue
Knoxville, TN 37902   615-595-5000

My e-mail code is groffw.

CAS

COUNCIL for the ADVANCEMENT of STANDARDS
for student services/development programs

CAS Standards Self Assessment Guide

A new CAS Self Assessment Guide has been published for each of 17 Student Affairs Functional Area Standards and Guidelines Plus the General CAS Standards

Winter 1989

The *CAS Standards and Guidelines for Student Services/Development Programs* have been augmented with the *CAS Self Assessment Guide* designed to aid student affairs professionals implement evaluations for program development and assessment, institutional effectiveness, strategic planning, or self-studies for accreditation and other purposes. Each "user friendly" *Guide* comes in a "stand alone" workbook format covering a particular functional area. *Guides* include criterion measures to assess the CAS Standards along with suggestions for identifying documentation, compliance status, and follow-up action plans. Each *Guide* includes the standards and guidelines for that functional area printed in an integrated, stand-alone format. With the current emphasis on institutional effectiveness, the *CAS Self Assessment Guides* are an essential evaluation tool for inclusion in every student affairs office library.

Sets of CAS Self Assessment Guides, drilled for three ring binders, are available for $50.00 per set. Single functional area *Guides* may be obtained at a cost of $5.00 each while supplies last. CAS has also authorized users to make copies of the *Guides* for local institutional use so one or two sets should be adequate for most colleges and universities. A 64 page users training manual entitled *Putting the CAS Standards to Work* is available as a bonus for the first 1000 orders for full sets of the Guides.

To order, complete form below and send with your check made payable to CAS. Please, no P.O. Boxes. No refunds allowed.

††

CAS Self Assessment Guide Order Form

Send ___ sets of CAS *Self Assessment Guides* @ $50.00 and/or ____ individual* *Guides* @ $5.00 to:

Name:____

Address:____

City:_____________________________ State:__________________ Zip__________

I wish to receive a complimentary copy of *Putting the CAS Standards to Work* _____Yes, _____No

Make check made payable to: **CAS, Office of Student Affairs, 2108 North Administration Building, University of Maryland, College Park, MD 20742.** CAS cannot honor purchase orders or other non-prepaid orders. Payments in US funds only please. Only one complimentary training manual per order please. Allow four to six weeks for delivery.

*For individual *Guide* orders, identify below the titles requested and the number of each ordered.

_____Academic Advising
_____College Unions
_____Disabled Student Services
_____Housing/Residential Life
_____Minority Student Programs
_____Research and Evaluation
___Alcohol & Drug Programs

_____Admission Programs
_____Commuter Student Programs
_____Division Level Programs
_____Judicial Programs
_____Recreational Sports
_____Student Activities
___Women's Studies

_____Career Planning and Placement
_____Counseling Services
_____Fraternity/Sorority Advising
_____Learning Assistance Programs
_____Religious Programs
_____Student Orientation

Consortium of student affairs professional organizations.
A Subscriber Member of the Council on Postsecondary Accreditation.

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408 Aderhold Hall
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Vice Chancellor Student Affairs
University of Maryland
College Park, MD 20742

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George Mason University
4400 University Drive
Fairfax, Virginia 22030

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Association of College and University Housing Officers (ACUHO)

Association of College Unions - International (ACU-I)

Association for Counselor Education and Supervision (ACES)

sociation of Fraternity Advisors (AFA)

Association on Handicapped Student Services Programs in Postsecondary Education (AHSSPPE)

Association for School, College and University Staffing (ASCUS)

Association of University and College Counseling Center Directors (AUCCCD)

College Placement Council (CPC)

National Academic Advising Association (NACADA)

National Association of Campus Activities (NACA)

National Association of College Admissions Counselors (NACAC)

National Association of Student Personnel Administrators (NASPA)

National Association for Women Deans, Administrators and Counselors (NAWDAC)

National Clearinghouse for Commuter Programs (NCCP)

National Council on Student Development (NCSDXA Council of AACJC)

National Intramural-Recreational Sports Association (NIRSA)

National Orientation Directors Association (NODA)

SSOCIATE MEMBERS

ernational Association of Counseling Services (IACS)

Southern Association of College Student Affairs (SACSA)

July Memo, E-VTO, 1992

The "Mid-June Memo" indicated that you should collect articles that match your interests. Record all citation information. Send me a copy of the articles and bring copies to the summer institute for a small group.

The "Late June Memo" listed organizations relevant to VTO. Several additional organizations are:

National Tech Prep Clearninghouse of Resources
East Central Curriculum Coordination Center
Sangamon State University, F-2
Springfield, IL 62794-9243 217-786-6375

National TechPrep Network (CORD) - "Late June Memo"

Quality Academy
Fox Valley Technical College
5 Systems Lane
P.O. Box 2277
Appleton, WI 54913-2277 414-735-5707

Pew Health Commission
3101 Petty Road, Suite 1106
Durham, NC 27707 919-489-5907
Healthy America: Practitioners for 2005 A Beginning Dialogue for U.S. Schools of Allied Health.

American Society for Quality Control
611 East Wisconsin Avenue
Milwaukee, WI 53202 800-248-1946
ASQC is doing a great deal of work with ISO 9000 standards.

National Center on Education and the Economy
39 State Street, Suite 500
Rochester, New York 14614 716-546-7620

Some of you are working on projects that will be of interest to others. Diane Comstock is studying telecommunications and multi-tech distant education and how it will impact the world of continuing education of health occupations in the future. Terry Overlock is developing a model for multi-tech distance education at Northern Maine Technical College.

The assignments prepare you for activities at the summer institute. Please bring a copy of your establishment's strategic plan and proposals/projects. Summer institute and specialization sessions will clarify visions of the future and a multi-year plan of action for your concentration.

The U.S. funded $25 billion in research and development at 700 centers employing 100,000 scientists and engineers in a Federal Laboratory Consortium in 1991-92.

EASY ACCESS TO THE FLC THROUGH REGIONAL CONTACTS

To take advantage of the FLC network and access the federal R&D laboratories and centers, contact the FLC Regional Coordinator responsible for your area. The Regional Coordinator working with the FLC Clearinghouse Locator will assist you in locating a specific laboratory to help meet your requests or solve your problem.

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FLC CHAIRMAN
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DOE-Pacific Northwest Laboratory
P.O. Box 999 - K1-34
Richland, WA 99352
(509) 375-2559

FLC VICE-CHAIRMAN
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DOD-Naval Undersea Warfare Ctr. Div., Newport (RI)
New London Detachment, Code 105, Bldg. 80T
New London, CT 06320
(203) 440-4590

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Sequim, WA 98382
(206) 683-1005

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REGIONAL COORDINATOR
Ms. Diana Jackson
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Ocean Surveillance Center
271 Catalina Blvd. * Code 9302/BAYSIDE
San Diego, CA 92152
(619) 553-2101

MIDWEST REGION
REGIONAL COORDINATOR
Dr. Paul Betten
DOE-Argonne National Laboratory
Technology Transfer Center
9700 S. Cass Ave. - Bldg 900/Rm M3
Argonne, IL 60439-4841
(708) 252-5361

NORTHEAST REGION
REGIONAL COORDINATOR
Mr. Al Lupinetti
DOT-Federal Aviation Administration
Technical Center
Attn: ACL-1, Atlantic City Intern. Airpt.
Atlantic City, NJ 08405
(609) 484-6689

MID-ATLANTIC REGION
REGIONAL COORDINATOR
Dr. Richard Rein
DOD-Naval Research Laboratory
4555 Overlook Ave. SW * Code 1003.1
Washington, DC 20375-5000
(202) 767-3744

MIDCONTINENT REGION
REGIONAL COORDINATOR
Mr. Arthur Norris
HHS/PHS/FDA-National Center for
Toxicological Research
NCTR Drive
Jefferson, AR 72079-9502
(501) 543-7516

SOUTHEAST REGION
REGIONAL COORDINATOR
Mr. H. Brown Wright
Tennessee Valley Authority
400 W. Summit Hill Drive
Knoxville, TN 37902
(615) 632-6435

WASHINGTON, DC REP
Dr. Beverly Berger
1550 M Street, N.W.
11th Floor
Washington, DC 20005
(202) 331-4220

BEST COPY AVAILABLE

1531 Peabody Avenue
Memphis, TN 38104
August , 1991

U. C. More Clearly
2020 Vision Ecstacy Pinnacle
Information Era, World 20001

Dear U. C.:

Congratulations. You have successfully completed E-VTO, an important learning experience in the Nova University Programs for Higher Education. Hopefully, this problem-solving process based on the three stages of leadership (analysis, vision, and action plan) gave you insights into solution-based education and how to restructure human resources development systems so that we ultimately have improved quality of life for all persons.

Please complete the enclosed evaluation forms and return them to me as soon as possible.

Match job responsibilities and PHE program requirements. Specify problems in your work context and consider them as opportunities for practicums and MARPs. Continue to develop files for areas of special interest. Keep networking with fellow students. I am online with Nova - "groffw."

My teaching and consulting schedule takes me to many cities. Although my primary focus must be on specific tasks, I shall always attempt to find time for students in VTO and PHE.

The world is going through a paradigm shift somewhat similar to the transition from an agricultural era to the industrial era. During that transition, vocational education was institutionalized alongside academic education. Today, a few communities are in the earliest stages of **fundamental restructuring** -- realigning existing establishments and creating new ones. The change is different in magnitude and speed -- macro and fast. VTO has a unique role to play in this shift. It is a pleasure working with you.

Sincerely,

Warren H. Groff
901-725-5287

"Plan to Plan" General Issues

1. Planning and budgeting?

2. Internal audit and external assessment?

3. College personnel and community representatives?

4. Who provides overall coordinating support?

5. What broad topics should be addressed during the plan to plan phase?

6. What types of documents should be produced?

7. What are the phases in a quality planning process? How do the phases parallel, relate, and interact with other processes like accreditation?

8. Resource room (documents, models, library)?

9. Communications?

10. Principles and values: EQuality, access, value added, cultural responsiveness (One Third Of A Nation, Shared Vision, Teaching As Leading)?

11. Planning styles - mindsets, predispositions?

12. Purposes of planning - followed by managing and evaluating (lead people, manage things)?

13. HRD - awareness, interest, understanding, commitment, dedication?

14. Definition of terms?

15. Evolution - PERT, PPBS, MBO, Strategic Planning?

16. Functions of education: worker, citizen, individual?

17. When and how to use consultants?

18.

19.

____________________Bottom Line____________________

Total Quality Commitment (TQC)

"Plan to Plan" Assessment Issues

1. Categories of variables to audit - demographic, social, economic, technological, governmental planning, values?

2. Number and types of committees?

3. Charge to committees and composition of membership?

4. Inventory of demographic data?

5. Inventory of social data?

6. Inventory of economic data (establishments & jobs)?
    - research and development centers

7. Technology
    - health and human services
    - business and industry
    - government and the military
    - education and social infrastructure

8. Governmental planning
    - local
    - state
    - federal

9. Values change?

10. Quality of life, economic impact?

11. International trade?

12.

13.

14.

15. Assumptions?

__________________Bottom Line__________________

External Assessment = Opportunities and Threats

"Plan to Plan" Audit Issues

1. Categories of variables to audit (AACJC Building Communities)?

2. Number and types of committees?

3. Charge to committees and composition of membership?

4. Policy and procedures manuals?

5. Committee structure, by laws, negotiated agreements?

6. Formal functional relationships?

7. Inventory of data bases (elements, formats, locations)?

8. Systems/subsystems
   - market analysis, marketing, public relations
   - budgeting

9. Inventory of major documents and reports?

10. Inventory of technology
    - library, info processing linkages, and networks
    - outreach, telecommunications
    - communication and information technologies

11. Organizational development + HRD activities?

12. Articulation 2+2+2?

13. Institutional effectiveness, outcomes?

14. Enrollment management?
    - how to obtain credit

15.

16.

17.

18. Assumptions?

________________________Bottom Line__________________________

Internal Audit = **Strengths** and **Weaknesses**

"Plan to Plan" Visions Issues

1. The Learning Enterprise consists of several systems:
    - elementary and secondary schools
    - colleges and universities
    - postsecondary occupational programs
    - formal apprenticeship programs
    - second chance training
    - employer-based training and development

2. MCCC is but one layer in industrial era schooling.

3. The high school graduating class of 2004 begins its journey through the pipeline in fall of 1991.

4. 1980s: mainframe to desktop to laptop to palmtop.

5. Pacific Rim, N. Am. Common Market, European Community.

6. Alternative education:
    - contemporary model with enhancements
    - partial technological deschooling
    - cooperative lifelong learning
    - problem or solution based learning

7.

8.

9.

10. "Full Service" Caring and Learning Communities.

11.

12.

13.

14.

15.

________________________Bottom Line__________________________

Visions (Alternative Scenarios) add clarity to SWOTs, a necessary step to specify STRATEGIC ISSUES AND DIRECTIONS

Total Quality Commitment Audit of Internal Environment

5 4 3 2 1

Mission - Current, Understood, Implemented

Vision - Unifies, Gives Direction, Purpose
Values, Leads to Outcomes Assessment

Plan - Organizational Development
- Transfer Programs
- Career Programs
- Remedial and Developmental Services
- Continuting Education
- Community Service
- Research - Basic and Applied

- Human Resources Development
  - Conceptual Competencies
  - Technical Skills
  - Interactive Competencies

Policy + Strategy & Tactics + Procedures

Program Review - Primary Programs
- Support Programs

Functional Analysis
- Planning, Research, and Development
- Enrollment Management
- Teaching & Student Learning Outcomes
- Institutional Technology Profile
- Committee Structure and Functions
- Library and Information Processing
- Building Communities

Resource Development

PROPOSALS

RATIONALE - WHY

GOALS & OBJECTIVES

- WHAT (OUTCOMES)

METHODOLOGY - HOW

EVALUATION

BUDGET

RATIONALE - WHY

ESSENTIAL TO VIABILITY

QUALITY OF LIFE

GLOBAL INFO SOCIETY

HUMANITARIAN THING TO DO

EQUALITY OF OPPORTUNITY

CONTEMPORARY MODEL/SYSTEM

RESEARCH AND THEORY

EXEMPLARY MODEL

RETURN ON INVESTMENT (ROI)

COMPARATIVE ADVANTAGE

NATIONAL - STATE - LOCAL

GOALS & OBJECTIVES

1. GOAL - LONG TERM

   OBJECTIVE - SHORT TERM

2. WHAT, NOT WHY & HOW

3. COMPONENTS OF A GOAL
   - "ENDS" ORIENTED
   - OUTCOMES FOCUSED

4. NUMBER OF GOALS - FEW
   - MAJOR TOPICS

5. OBJECTIVES - FEW PER GOAL
   - MINOR TOPICS

6. COMPONENTS OF OBJECTIVES

   - WHAT IS TO BE ACCOMPLISHED
   - TO WHAT EXTENT
   - BY WHEN

GOAL SETTING

ACHIEVABLE

CHALLENGING

MOTIVATING

REALISTIC

A MULTI YEAR FOR (CULTURAL DIVERSITY) (SCIENCE, TECHNOLOGY & SOCIETY) (PARENTING)

GOAL 1	OBJ. 1 -AWARENESS	OBJ.2 - UNDERSTANDING	OBJ.3 - COMMITMENT
	METH.	METH.	METH.
	EVAL.	EVAL.	EVAL.
	BUDGET	BUDGET	BUDGET
	OBJ. 1	OBJ. 2	OBJ.3
GOAL 2	METH.	METH.	METH.
	EVAL.	EVAL.	EVAL.
	BUDGET	BUDGET	BUDGET
	OBJ.1	OBJ.2	OBJ.3
GOAL 3	METH.	METH.	METH.
	EVAL.	EVAL.	EVAL.
	BUDGET	BUDGET	BUDGET

METHODOLOGY

OBJECTIVE 1 - FOCUS

1. PERSONNEL (EXISTING, NEW)
   NUMBER
   TYPE
   COMPETENCIES & SKILLS
   RELATIONSHIPS
   HUMAN RESOURCE DEVELOPMENT

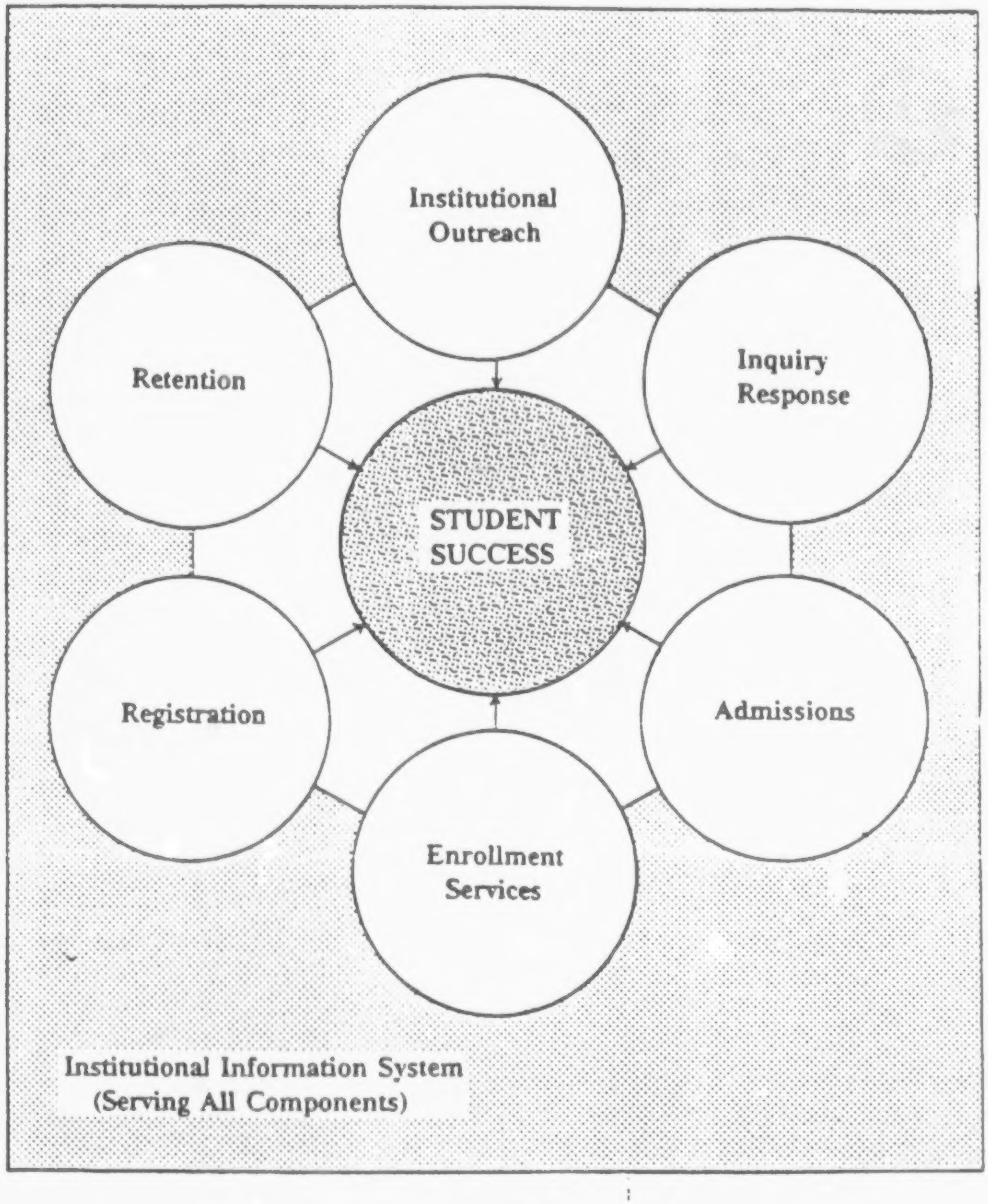
2. TECHNOLOGY
   KNOW HOW
   HARD - SOFT
   NETWORKS
   INFO + TECH CENTERS

3. INTERESTABLISHMENT
   MISSION ALIGNMENT
   SOCIAL INFRASTRUCTURE
   DEGREE OF RELATIONSHIP

4. BUILDING - PLANT
   RENOVATION
   NEW
   PHYSICAL INFRASTRUCTURE

5. FINANCES
   OPERATING
   CAPITAL

ENROLLMENT MANAGEMENT SYSTEM

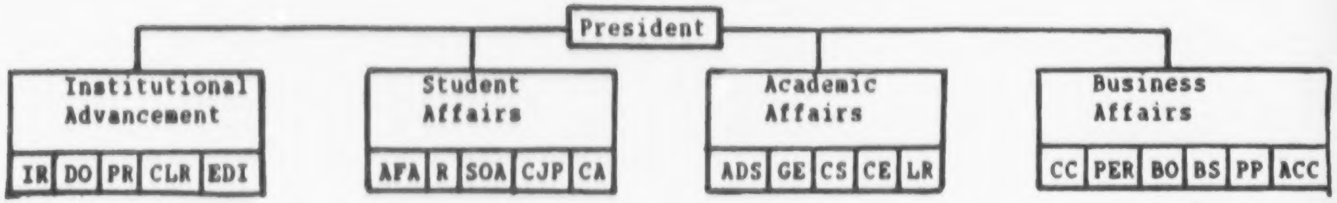

Institutional Outreach
Inquiry Response
Retention
STUDENT SUCCESS
Registration
Admissions
Enrollment Services
Institutional Information System
(Serving All Components)

Shelby State Community College
Memphis, Tennessee

November 16, 1988

INSTITUTIONAL UNITS RESPONSIBLE FOR IMPLEMENTING ENROLLMENT MANAGEMENT SYSTEM COMPONENTS

	Responsible Unit
A. INSTITUTIONAL OUTREACH	
1. Public Relations	Institutional Advancement
2. Focused Marketing	Institutional Advancement
3. Recruitment	Student Affairs
4. Community Services	Instit Advance/Acad Affairs
B. INQUIRY RESPONSE	
1. Student Prospect Management	Student Affairs
2. Admissions Counseling	Student Affairs
3. Financial Aid Counseling	Student Affairs
C. ADMISSIONS	
1. Admissions Processing	Student Affairs
2. Applicant List Management	Student Affairs
D. ENROLLMENT SERVICES	
1. Course Placement Testing	Student Affairs
2. New Student Orientation	Academic Affairs
3. Academic Advising	Academic Affairs
4. Personal and Career Counseling	Student Affairs
5. Academic Program Orientation	Academic Affairs
6. Financial Aid Processing	Student Affairs
7. Support Services Referral	Student Affairs
8. Records Processing	Student Affairs
E. REGISTRATION	
1. Course and Schedule Management	Academic Affairs
2. Registration Processing	Student Affairs
3. Drop-Add Processing	Student Affairs
F. RETENTION	
1. Instructional Delivery	Academic Affairs
2. Program Development	Instit Advance/Acad Affairs
3. Job Placement	Student Affairs
4. Internal Public Relations	Institutional Advancement
5. Student Activities	Student Affairs
6. Pre-Withdrawal Counseling	Stu Affairs/Acad Affairs
7. Business Office Services	Business Office
G. INSTITUTIONAL INFORMATION SYSTEM	
1. College and Community Research	Institutional Advancement
2. Institutional Evaluation	
3. Degree Monitoring	Academic Affairs
4. Systematic Information Feedback	Institutional Advancement


President
Institutional Advancement
IR
DO
PR
CLR
EDI
Student Affairs
AFA
R
SOA
CJP
CA
Academic Affairs
ADS
GE
CS
CE
LR
Business Affairs
CC
PER
BO
BS
PP
ACC

Function	Lead Unit
Research - Needs	IA
Marketing/Public Info.	IA
Recruitment	SA
Admissions	SA
Scheduling	AA
Orientation	AA
Registration	SA
Fee Collection	BA
Running Classes	AA
Student Activities	SA
Counseling	SA/MA
Academic Advising	AA
CO-OP/Internships	AA
Security	BA
Safety	BA
Placement	SA
Follow-Up	PP, SA, IA

Institutional Advancement

IR	Institutional Research
DO	Development Office
M	Marketing
PR	Public Relations
CLR	Community and Legislative Relations
EDI	Entrepreneurial Development Institute
MCHS	Middle College High School

Student Affairs

AFA	Admissions and Financial Aid
R	Records
SOAA	Student Organizations and Activities and Athletics
CJP	Career and Job Placement
CCA	Center for Counseling and Advising

Academic Affairs

ADS	Academic and Developmental Services
GTS	General and Transfer Studies
CS	Career Studies
CES	Community Education Services
LR	Learning Resources

Business Office

CC	Computer Center
P	Personnel
BS	Book Store
BS	Business Services
PP	Physical Plant
A	Accounting

SHELBY STATE COMMUNITY COLLEGE
STUDENT AFFAIRS UNIT

DEAN'S OFFICE

- Course Scheduling
- Night Administrative Services

ADMISSIONS AND FINANCIAL AID

- Student Admissions
  - •Admissions Data Input
  - •Residency Classifications
  - •Transcript evaluations
  - •International Student Credentials
  - •Student File Maintenance
  - •Special Admissions
- Student Financial Aid
  - •Financial Aid Awards
  - •Veteran Certification
  - •Student Loan Certification
  - •External Award Coordination
  - •Financial Aid Transcript
- Records
  - •Admissions, Financial Aid and Veterans reports to College, State and Agencies
- IA SIS Conversion
- Adopt-A-School
- Counseling
  - •Admissions
  - •Financial Aid/Veterans
  - •Special Admission
- Registration Appointments

RECORDS

- Academic Records
  - •Security and maintenance
  - •Data Input of permanent records
  - •Readmission Certification
  - •Processing and mailing
- Verification and Certification of Enrollment
  - •Outside agencies: GSL, DHS, MHA, F.B.I.
  - •Athletics
- Graduation
  - •Degree plan certification
- Registration
  - •Processing of Fee Cards
  - •Mail of approved SIF
- Counseling
  - •Transcript Interpertation
- Reports
  - •Class Rolls
  - •College and External Agencies
- Transcripts
  - •Former and currently enrolled Student
  - •Authorized external Agencies

STUDENT ORGANIZATIONS AND ACTIVITIES AND ATHLETICS

- Government Association
  - •Elections
  - •Advisory
- Social Discipline
- Graduation
  - •Organization/Impletation
- Student Newspaper
  - •The Insider
- Student Organizations
  - •19 organizations
- College-wide Activity Calendar
- Inter-Collegiate Athletics
  - •Game Schedules
  - •NJCAA and TJCCAA Regulations
  - •Restricted Budget Control
  - •Athletics Eligibility

CAREER AND JOB PLACEMENT

- Job Placement
  - •On/off campus
  - •Students/graduation alumni
- College Work Study Program
  - •Development of on/off work sites
  - •Monitor/Reconcile CWSP payroll
  - •Implement Federal Guidelines
  - •Invoice off-campus employers
  - •Assign CWSP students
- Registration
- Counseling
  - •Personal/Career
- Career and College Days
- Reporting
  - •CWSP President's Annual Report
  - •Graduate Performance Funding
  - •CWSP Annual Fiscal Report
- Recruitment
  - •Media Presentations
  - •Employees of Business/Industry
  - •Publications
  - •Authorized external Agencies

CENTER FOR COUNSELING AND ADVISING

- Counseling
  - •Career
  - •Personal
  - •Academic
  - •Withdrawal
- Late Registra-
- Drop/Add
- Testing
  - - AAPP, ACT, ACT COMP
  - •Administration
  - •Site Development
  - •Scoring
  - •Scheduling
- Recruitment

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CAS

COUNCIL for the ADVANCEMENT of STANDARDS
for student services/development programs

CAS Standards Self Assessment Guide

A new CAS Self Assessment Guide has been published for each of 17 Student Affairs Functional Area Standards and Guidelines Plus the General CAS Standards

Winter 1989

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George Mason University
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Fairfax, Virginia 22030

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Association of Fraternity Advisors (AFA)
Association on Handicapped Student Services Programs in Postsecondary Education (AHSSPPE)
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National Association of Student Personnel Administrators (NASPA)
National Association for Women Deans, Administrators and Counselors (NAWDAC)
National Clearinghouse for Commuter Programs (NCCP)
National Council on Student Development (NCSD)(A Council of AACJC)
National Intramural-Recreational Sports Association (NIRSA)
National Orientation Directors Association (NODA)

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* * *

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_____Division Level Programs
_____Judicial Programs
_____Recreational Sports
_____Student Activities
_____Career Planning and Placement
_____Counseling Services
_____Fraternity/Sorority Advising
_____Learning Assistance Programs
_____Religious Programs
_____Student Orientation
___Alcohol & Drug Programs
___Women's Studies

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NORTH CENTRAL ASSOCIATION OF COLLEGES AND SCHOOLS
COMMISSION ON INSTITUTIONS OF HIGHER EDUCATION
159 North Dearborn Street, Chicago, IL 60601

DRAFT DOCUMENT/September 6, 1991

TEN CHARACTERISTICS OF AN ASSESSMENT PROGRAM

The following characteristics are provided as a guide and stimulus to ongoing discussion and collaboration within and among institutions. They are an elaboration of material that first appeared in an article entitled "Criterion Three and the Assessment of Student Academic Achievement" by Gerald Patton and Austin Doherty, in the *NCA-CIHE Assessment Workbook (1991).*

1. FLOWS FROM THE INSTITUTION'S MISSION

Central to the existence of every institution of higher education is the intention to educate students, to ensure their academic growth and attainment, and to certify other levels of accomplishment publicly through awarding credits and diplomas. Each institution expresses this central aspect of its mission and purposes in language that recognizes the particular characteristics that distinguish it from its peers: its origin and tradition, the types of students it serves, the kinds of education and professional training it seeks to provide those students, and its philosophy of learning. It is this specific formulation of mission and purposes that will determine what the appropriate assessment program will be, and how the results of that program will be utilized to provide evidence of students' academic achievement and to enable the institution to use the results of such assessment to improve its educational programs and instruction and thus further enhance student learning. This characteristic, therefore, directly links assessment to Criterion One.

2. HAS A CONCEPTUAL FRAMEWORK

The assessment program must be constructed upon a conceptual framework that flows directly from the institution's published mission and purposes. The conceptual framework should be presented in a narrative that describes what the institution understands to be the relationships of the kinds of skill and knowledge it expects its students to gain, the curricula it offers, the modes of teaching and learning it stresses, the means of assessment it employs, and the ways in which the results of assessment are to be used to improve student learning.

One of the values of developing a conceptual framework is that the process itself provides an invaluable opportunity for faculty and administrators to examine and reconsider the expectations they have for themselves and their students and to probe relationships between and among mission, student academic achievement, contributions of resources to this achievement, and future directions to ensure continued achievement.

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3. HAS FACULTY OWNERSHIP/RESPONSIBILITY

Given the historic responsibility of faculty in determining credit, certificate and degree requirements, the content of courses, and what is to be accepted as evidence that a student's accomplishment has met established standards, it is self-evident that the faculty must assume primary responsibility for the design, implementation, and evaluation of any program to assess student academic achievement. This fact in no way precludes participation by academic administrators or the use of consultants whose research or experience would enable them to serve as helpful resources. The means by which faculty carry out their responsibility for the design and implementation of an assessment program will, of course, depend upon the organization of the faculty and the form of governance in place within the institution.

4. HAS INSTITUTION-WIDE SUPPORT

Board members, the chief executive and chief academic officers, and all other administrators and staff, as well as the faculty, should be informed and in basic agreement about the nature and importance of on-going assessment of student academic achievement.

In order to achieve this end, academic officers and faculty committees may find that it is helpful to provide clear, written descriptions of the respective roles and responsibilities of the individuals and groups comprising the academic community who are to develop student assessment goals and support assessment activities so that assessment is accepted as an integral part of institutional existence. The planning documents, the resource allocations (budget), and other institutional decisions, should reflect that the institution is monitoring how well the institution is meeting its goals for student learning and should document how to improve the effectiveness of the curriculum and teaching. Publications intended for internal and public distribution should stress the centrality of student learning and achievement and describe how the assessment program contributes to the institution's continued attention to this important aspect of its mission and purposes.

5. USES MULTIPLE MEASURES

Because of the variety of components that are required to provide a full description of student academic achievement and the importance of assessing whether achievement at various stages in the student's academic experiences constitutes appropriate progress, it is essential that the assessment program employ multiple measures. No one instrument is sufficiently complex to capture the range of student achievement necessary for the institution to make a judgment regarding how well it is fulfilling its purposes in this area. It is therefore necessary for the institution to use a variety of measures in seeking ways to improve student learning. Taken together, the results of these diverse means of assessment provide the major information that should be integrated into the institution's review and planning processes to improve its educational programs.

6. PROVIDES FEEDBACK TO STUDENTS AND THE INSTITUTION

In order for student achievement assessment to be valuable to an institution, the results of the various types of assessment should be incorporated into appropriate levels of planning and resource allocation so that the weaknesses identified through assessment can be corrected and the strengths revealed by the process can be maintained.

Individual students have been found to profit significantly from timely and specific information about the quality of their present performance in relation to their own past performance. Feedback is a spur to improved learning. Care should be taken, therefore, to ensure that among the multiple measures used, some provide students with the information relevant to improving their individual academic performance.

7. IS COST-EFFECTIVE

In the climate of financial austerity in which most institutions of higher learning are now functioning, it is important that available monetary and human resources be prudently and effectively deployed. The assessment program should be designed to seek information directly relevant to institutional improvement and to obtain that information at a reasonable cost in time and money.

As the assessment program is itself evaluated on a recurrent basis, the institution should examine whether its expenditures for gathering various types of information, and for analyzing and interpreting the results of the multiple measures of achievement in place, are sound and judicious.

8. DOES NOT RESTRICT OR INHIBIT GOALS OF ACCESS, EQUITY, AND DIVERSITY ESTABLISHED BY THE INSTITUTION

If an institution develops a conceptual framework for its student achievement assessment program based directly upon its mission and purposes, the resultant means of assessment are likely to be appropriate to the particular student body it serves and in harmony with its institutional goals pertaining to access, equity and diversity. If, however, a limited view of what constitutes appropriate measures of achievement becomes dominant, important values that have traditionally guided the institution may be seriously weakened. It is essential, therefore, that the institution keep its values and purposes clearly in mind when deciding how best to measure student achievement.

9. LEADS TO IMPROVEMENT

North Central views assessment of student academic achievement, and all concurrent and related evaluations of curriculum, teaching, and instructional support services and facilities, as a means to increasing students' learning, academic achievement, and individual/personal development. Since neither the process of assessment nor knowledge of the results of assessment automatically leads to constructive change and improvement,

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institutions need to incorporate into their regular planning process the requirement that faculty and administrators specify the actions they will take in response to the results of the assessment of student achievement when improvement is called for. The planning process also needs to make explicit that the institution will evaluate whether the steps proposed to improve student achievement have indeed resulted in the desired improvement. That faculty and administrators are using the information provided by the assessment program to make plans, set timetables, and allocate resources, is, in the judgment of North Central, critically important.

10. HAS A PROCESS IN PLACE FOR EVALUATING THE ASSESSMENT PROGRAM

Like other programs in the institution, the assessment program itself needs to be evaluated. An evaluation process will determine whether the conceptual framework is sound, whether all components are appropriate to the institution's mission and purposes, whether the data gathered are being used for the intended purposes, and whether the primary goal of the program--the improvement of educational programs and the enhancement of student academic achievement--is being attained. Only through comprehensive evaluation can the institution determine what adaptations need to be made in its assessment program to ensure its greater effectiveness.

MULTI-YEAR PLAN FOR HUMAN RESOURCES DEVELOPMENT: MATHEMATICS, SCIENCE, AND TECHNOLOGY (MST) APPLICATIONS IN THE WORKPLACE

MID 1990s

LATE 1990s

YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
MST$_1$	Practicum	Design	Pilot Test	Evaluate	
	MST$_2$	Practicum	Design	Pilot Test	Evaluate
		MST$_3$	Practicum	Design	Pilot
			MST$_4$	Practicum	Design

GOAL

RETHINK, RESTRUCTURE, REVITALIZE

OBJECTIVES

TO RAISE LEVEL OF AWARENESS

TO ANALYZE THEORY, RESEARCH, AND EXEMPLARY PRACTICE

TO DESIGN ALTERNATIVE EDUCATION MODELS (AEMs)

TO PILOT TEST AND EVALUATE (AEMs)

HUMAN RESOURCES DEVELOPMENT:
MATHEMATICS, SCIENCE, AND TECHNOLOGY (MST) APPLICATIONS IN THE WORKPLACE

WINTER		SPRING				SUMMER			FALL	
1	2	3a	3b	3c	3d	4	5	6	7	8

1. Receive Materials

2. Learning Contract

3. Complete Assignments In Learning Contract

4. Visitations - Week Prior to Summer Institute
   CA - National Center for Research in Vocational Education
   TX - Center For Occupational Research and Development
   National Coalition of Advanced Technology Centers
   IC², INFORMAT, NASA (Houston)

5. Summer Institute

6. Visitations - Week Following Summer Institute
   DC - US Departments of Education, Labor, Agriculture, ASTD; AVA; AACJC; One Dupont Circle

7. Synthesis Paper

8. Practicum (Optional)

Goal 4. Math and Science

Objective 3a.

To specify and implement strategies which will enhance the likelihood of increasing the number of undergraduate students, especially women and minorities, in mathematics, science, and engineering programs.

Objective 3b.

To increase significantly the number of United States undergraduate and graduate students, especially minorities and women, who complete degrees in mathematics, science, and engineering (MSE) programs (1).

3b(1). To **attract** more students into undergraduate education who indicate interest in majoring in MSE programs.

3b(2). To **articulate** MSE curricula between secondary school and lower- and upper-division postsecondary programs.

3b(3). To **analyze** MSE curricula to identify obstacles which impede students from progressing successfully toward degree completion.

3b(4). To **matriculate** more baccalaureate graduates into graduate MSE programs.

3b(5). To **transition** graduates from MSE undergraduate programs and students in graduate programs into classrooms in a variety of contexts.

3b(6). To **retain** more career entry teachers and provide for their continued professional development.

3b(7). To **explore** alternative certification processes to assist persons to enter teaching from various fields.

3b(8). To **develop** a private/public sector multiple establishment partnership to extrapolate trend analysis data to specify competencies and skills necessary for the workforce to be productive in the workplaces of the future.

3b(9). To **design**, possibly implement on a pilot basis, entirely new learning systems, beyond the contemporary traditional layered educational system, for the preparation of the MSE workforce based on the design team models from the New Generation of American Schools.

1 Minorities and women applied to all objectives.
National Science Foundation list of MSE programs attached.

MULTI-YEAR PLAN
GOAL 4 - MATH - SCIENCE
OBJECTIVE 3 - UNDERGRADUATE & GRADUATE EDUCATION

	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
3b (1) Attract					
3b (2) Articulate					
3b (3) Analyze					
3b (4) Matriculate					
3b (5) Transition					
3b (6) Retain					

STRATEGIC DIRECTIONS

1. Relationships with Communities and Businesses of All Types
2. Financial Resources
3. Technology and its applications
3. Articulation/Transfer (Tech-Prep)
5. Institutional Effectiveness
6. Coordination & Governance
7. Trend Analysis and Extrapolation
8. Communications and Information Infrastructure
9. Socioeconomic Responsiveness
10. Image Building and Marketing

STRATEGIC GOAL CATEGORIES

External Environment

1. Government & Community
    - a. To strengthen relationships with government agencies to broker services in response to socio-economic needs in a coordinated fashion.
    - b. To increase awareness of the effectiveness and value of Community College education and services.
        - 1) To create better awareness of current and potential services available through the Community College system.
        - 2) To institute better marketing of Community Colleges to businesses of all types to gain financial and political support.
    - c. To influence policy through presentation of better information and data, increased planning, and on-going coordination, especially with the Legislature and the Coordinating Commission.

2. Businesses of All Types
    - a. To strengthen relationships with businesses of all types, particularly agriculture, manufacturing, wholesale trade, retail trade and services.
        - 1) To develop Community College leadership in promoting the Nebraska Development Network (NDN).
        - 2) To strengthen and/or develop partnerships, especially two-way technology transfer.
        - 3) To develop and/or expand preparation for global/international economic participation.

3. Education Sectors
    - a. To expand cooperation with schools, particularly through Nebraska 2000, Tech-Prep and 2+2 in the areas of math, science and technology and through program articulation, adult education and telecommunications.
    - b. To expand cooperation with 4-year colleges, particularly through Nebraska 2000 Postsecondary Education Goals and sector-to-sector articulation and transfer.

Internal Environment

1. Services
    - a. To broaden all levels of services to incoming and exiting students.
        - 1) To enhance enrollment management and commitment to at-risk populations.
    - b. To improve and expand instructional quality and access through alternative delivery systems, library & information systems, quality programs and program sharing.
    - c. To increase participation in community affairs through community forums and by providing leadership in the community.
    - d. To improve and expand administrative activities in areas of institutional effectiveness, marketing, and the monitoring of federally mandated programs.
        - 1) To establish a common database.

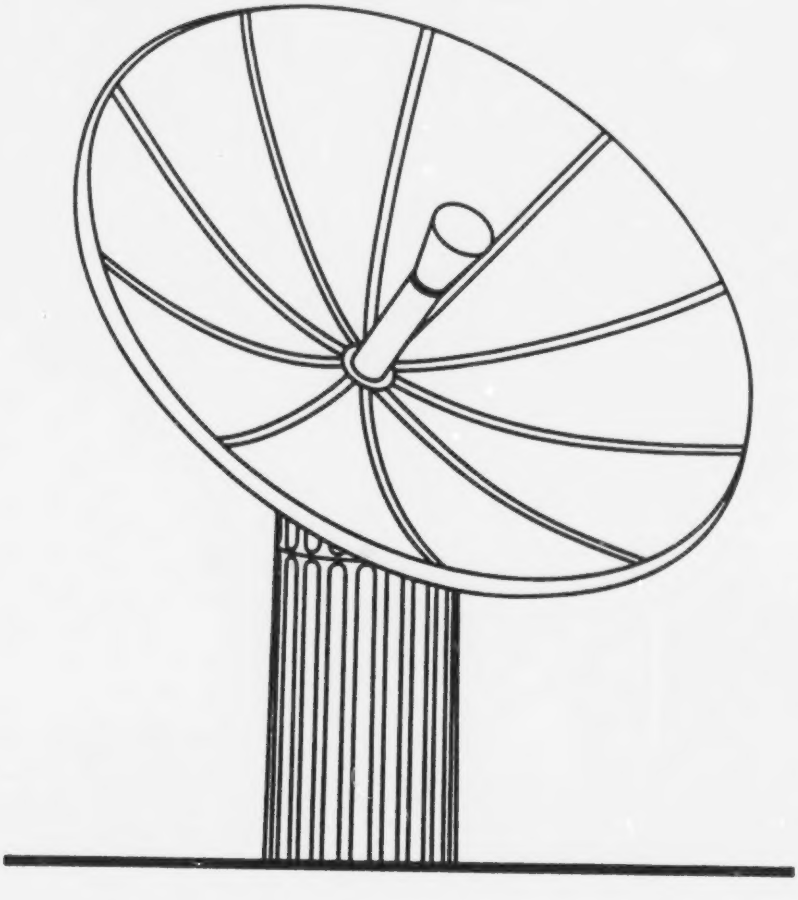
2. Human Resources Development
    - a. To increase personnel development of faculty and staff through career and leadership development and wellness.
    - b. To upgrade "cutting edge" technological awareness, sensitivity and receptivity.
        - 1) To share technology is crucial.

3. Governance, Coordination & Finance
    - a. To strengthen effectiveness of locally elected governing boards in their participatory decision making and ability to respond.
    - b. To improve coordination through the NCCA in regard to Role & Mission priorities and a predisposition to voluntary cooperation.
        - 1) To enhance communication effectiveness.
    - c. To stabilize and increase local and state funding.
        - 1) To seek adequate resources in face of accelerating cost of technology, federally mandated programs and federal "dumping" liabilities.
        - 2) To seek alternative funding (foundations, other).
        - 3) To keep tuition level affordable for access.

AREAS OF NCCA EMPHASIS

- Influence Policy-Making at the Local, State and Federal Levels
- Increase Awareness of CC Roles and Services
- Strengthen Relationships with Key "Communities"
- Increase the Proactive Leadership Role for the Community College System
- Improve Administrative Services for Total Quality Commitment
- Improve Human Resource Development System-wide
- Improve System Coordination
- Stabilize and Increase Area Financing

TECH-PREP



PREFACE FOR TECH PREP CONSORTIUM

Numerous issues will be important in the years ahead. No issues will be more important, however, than providing greater access for more people to quality health care at a reasonable cost. While the U.S. leads the world in many areas of research and development in health, the quality of health status has declined significantly from a high rank among industrialized nations to a position below some underdeveloped nation in some indicators such as infant mortality. Of particular significance are health indicators in inner city and rural areas such as the Lower Mississippi Delta region with high concentrations of disadvantaged minorities, particularly Blacks and Native Americans.

Secondary and postsecondary education in the Memphis area significantly improved its articulation in the 1980s. Governor Lamar Alexander implemented a "Better Schools Program" with numerous projects to improve the systems at all levels. One such project was "The Tennessee State-Wide School-College Collaborative for Educational Excellence" begun in 1982 and sponsored by The Tennessee Board of Education, The Tennessee Department of Education, The Univesity of Tennessee, The Tennessee State Board of Regents and Educational EQuality of The College Board in New York. Postsecondary education shifted from a quarter to a semester format during 1986-87 and Memphis area institutions reviewed existing articulation agreements and began to develop new interinstitutional collaboration including the Middle College High School on the Mid-Town Campus of Shelby State Community College which was started in the fall of 1987. Furthermore, chairs of institutional and system planning committees met regularly during that period to foster interinstitutional collaboration.

The above-mentioned activities were laudable and necessary, but are insufficient for today's intractable social problems. Bolder, more creative, and far more innovative approaches must be initiated to deal with problems of broad public interest. As Albert Einstein stated, "Problems cannot be solved at the same level of consciousness that created them."

Allied health professionals comprise over 60% of the U.S. health care work force and are essential to the well-being of the majority of Americans. There is a critical shortage of allied health professionals and nurses; and predictions indicate that the supply will diminish while the demand for health care workers will increase, not to mention the distribution issues by geographic region or speciality. In addition, minorities are underrepresented in every occupational category in relationship to percentage of the total population, yet minorities have higher rates of incidence in most categories of conditions and diseases.

The ultimate purpose of professional educators and clinicians is to design programs of preparation and continuing education to promote improvement in the quality of services. Health American: Practicitioners for 2005 contains several recommendations which help to create a conceptual framework: (1) create a vision, (2) validate clinical practice, (3) improve linkages, (4) career mobility and (5) renovate accreditation.

The conceptual framework for this multi-year application is based on the dual goals of **refinement** and **dissemination**. Although this project is based upon established tech prep programs in the health occupations, it must be recognized that quality today does not represent benchmarks that will be acceptable standards tomorrow. As David Kearns has stated, "In the race for quality, there is no finish line." The **refinement** goal consists of continuous audit and integration of curriculum based on validated clinical competence. Complex and rapid advances in technology are reflected in changes in protocols and procedures in health care delivery contexts and must be incorporated into the curriculum. In addition, changes in alternative education delivery systems must also be incorporated into the curriculum at multiple levels.

The **dissemination** goal consists of training, technical assistance, and replication. Each of these areas is described in detail in the document. The **replication** objective deserves additional comment. Replication is not defined as a duplicate, exact model of the exemplary program at another site. Rather, replication is defined as creating and co-creating a conceptual framework and a new break the mold model at another site that is based on the latest in know-how and technology.

Replication includes a proactive approach to "Rethinking for Restructuring for Revitalizing" based on site identification, infrastructure development, and the co-creation of the next generation of tech prep programs. In the mid 1980s, The University of Tennessee Memphis created The Biomedical Information Transfer Center. The Memphis Metropolitan Campus Network (MMCN) links together the campuses and teaching hospitals. A comprehensive information processing and telecommunications capability is being developed which would permit the creation, storage, retrieval, tranmission, and reception of audio, data, and video to and from anywhere in the world. The Center for Telecommunications and Information Systems at Christian Brothers University has developed a program to evaluate applications of information technology in education. These components of infrastructure make it possible to develop bold, creative, and innovative approaches to health education and the preparation of personnel to work in health care settings.

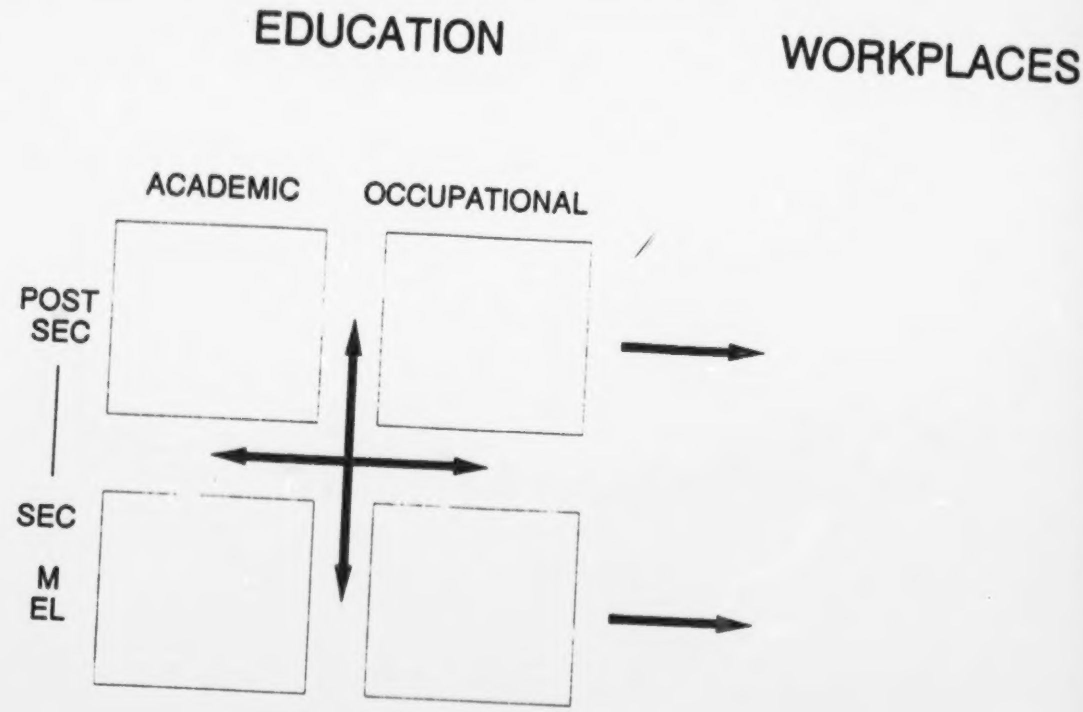
The Tech Prep Consortium will identify a site such as Tunica County, Mississippi, the nation's poorest county, where 53 percent of the people live below the poverty line. The Consortium will provide training and technical assistance to raise awareness and understanding and to build infrastructure. The Consortium will then create a vision that includes (1) delivering most didactic instruction to that geographic area, (2) offering students clinical experiences in Memphis in a variety of health care settings, and (3) providing for their continuing education via contemporary communication technology. The technology infrastructure exists with INTERNET, NSFNET, the National Research and Education Network (NREN), the Advanced Communications Technology Satellite (ACTS) Program, and local area networks.

Vision creation will go beyond the Lower Mississipi Delta region. A study by the Population Crisis Committee reported harsh suffering in 83 countries with 73 percent of the world's population in areas where conditions are extreme such as in Mozambique, Somalia, Afghanistan, Haiti, and Sudan. In March 1992, the Memphis-based organization called the United States-Africa Association for Partnership signed an agreement to provide assistance to the 47 nations of the African continent. The Tech Prep Consortium will explore the feasibility of replication to the African continent to attempt to stave off starvation of 30 million people and the spread of AIDS and other debilitating health conditions.

In summary, this dissemination project is based on refinement of established tech prep programs in allied health and nursing and pursuing replication in a proactive manner. No moral or sensible nation dare continue to ignore the changing demographic, social, and economic conditions of the family and the devastating impact on the children and youth, particularly in rural and urban areas, of this nation and of other nations. People at all ages must be physically and psychologically healthy to lead meaningful and productive lives. America 2000 and other initiatives must be based on bold, creative, proactive, and visionary ideas that form conceptual frameworks for the next generation of collaborative solution-based human resources development systems that are the centerpiece of "Info Era Learning Communities of the Future" that reflect Total Quality Commitment to the integration and synchronization of society, work, and education.

PM GENERAL EDUCATION CORE	SP NEXT GENERATION TECH-PREP PROGRAMS
PH REM & DEV ED VIA TECH ON SITE	SH RURAL COMMUNITY LDRSHIP & SOCIAL INFRASTRUCTURE DEV
PM VOC-TECH ED ON SITE & MOBILE	SP LIFELONG CONSUMER CONTROLLED LEARNING FOR ADULT LITERACY
PH REM & DEV ED DISTANT DELIVERY COMMUNITY, HOME, WORK	SH SOLUTION BASED LEARNING FOR HEALTH CAREERS

HEALTH AND HUMAN SERVICES	HEALTH AND HUMAN SERVICES
BUSINESS AND INDUSTRY	BUSINESS AND INDUSTRY
GOVERNMENT AND PUBLIC SERVICE	GOVERNMENT AND PUBLIC SERVICE
EDUCATION AND TRAINING	EDUCATION AND TRAINING



EDUCATION

WORKPLACES

ACADEMIC

OCCUPATIONAL

POST
SEC

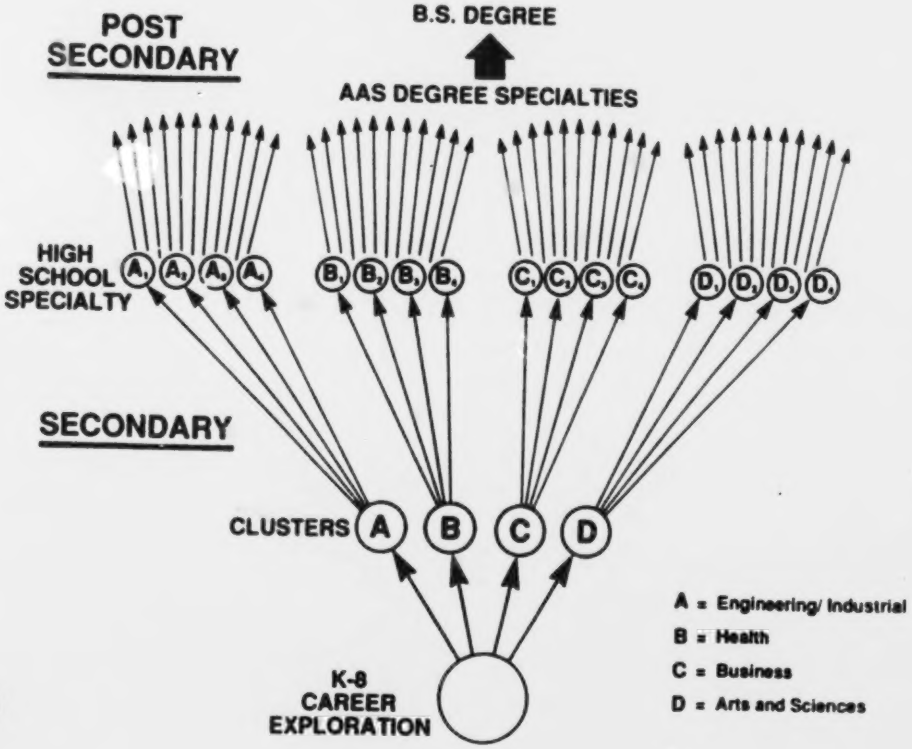
SEC

M
EL

NEXT GENERATION TECH-PREP PROGRAM

	YEAR 1	YEAR 2	YEAR 3
REFINEMENT 1. AUDIT 2. INTEGRATION 3. "CLINICAL"			
DISSEMINATION 1. TRAINING 2. TECHNICAL ASSISTANCE 3. REPLICATION			
EVALUATION			

SECONDARY PROGRAM CLUSTERING FOR TPAD


POST SECONDARY
B.S. DEGREE
AAS DEGREE SPECIALTIES
HIGH SCHOOL SPECIALTY
A1 A2 A3 A4
B1 B2 B3 B4
C1 C2 C3 C4
D1 D2 D3 D4
SECONDARY
CLUSTERS
A
B
C
D
K-8 CAREER EXPLORATION
A = Engineering/ Industrial
B = Health
C = Business
D = Arts and Sciences

4+2 TPAD MODEL: HEALTH CLUSTER
Nursing

	HIGH SCHOOL				POSTSECONDARY			
SUBJECT	Freshman	Sophomore	Junior	Senior	Freshman A	Freshman B	Sophomore A	Sophomore B
MATH	Applied Math I	Applied Math II	Algebra II					
ENGLISH	English I, II, and III and Applied Communication (4 units)				English I	English II		
SCIENCE	Applied Biology / Chem.	Biology	Principles of Technology I	Chemistry	Anatomy/ Physiology	Anatomy/ Physiology	Microbiology	
HUMANITIES	Geography, History, and Government (4 units)							
OTHER	Health / PE			Psychology	General Psychology	Speech	Human Growth & Development	Principles of Sociology
OTHER								
TECHNICAL CORE	Keyboarding/ Word Proc.	Computer Basics	Intro to Health Careers	Anatomy	Computer	Therapeutic Nutrition	Fundamentals of Physiolog. Chem.	
TECHNICAL CORE								
TECHNICAL SPECIALTY				Health Careers Nursing	Fundamentals of Nursing	Nursing of Adult / Child. I	Nursing of Women	Nursing of Adult / Child. III
TECHNICAL SPECIALTY				Health Careers Nursing	Fundamentals of Nursing	Nursing of Adult / Child II	Mental Health Nursing	Nursing of Adult / Child. IV

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4+2 TPAD MODEL: BUSINESS CLUSTER
Accounting

	HIGH SCHOOL				POSTSECONDARY			
SUBJECT	Freshman	Sophomore	Junior	Senior	Freshman A	Freshman B	Sophomore A	Sophomore B
MATH	Applied Math I	Applied Math II	Algebra II		Business Math			
ENGLISH	English I, II, and III and Applied Communication (4 units)				English I	English II		Speech
SCIENCE	Applied Biology / Chem.	Principles of Technology I	Elective					
HUMANITIES	Geography, History, and Government (4 units)							
OTHER	Health / PE			Economics		Psychology	Economics	
OTHER								
TECHNICAL CORE	Keyboarding/ Word Proc.	Computer Basics	Intro to Business	Business Adm. & Management	Office Machines	Business Law	Business & Finance	
TECHNICAL CORE		Technical Systems			Intro. to Business			
TECHNICAL SPECIALTY			Accounting	Intro. to Accounting	Intro. to Accounting	Prinicples of Accounting I	Principles of Accounting II	Principles of Accounting III
TECHNICAL SPECIALTY				Accounting	Taxes I	Accounting Applications	Auditing	Taxes II

F-139

4+2 TPAD MODEL: BUSINESS CLUSTER
Merchandising

	HIGH SCHOOL				POSTSECONDARY			
SUBJECT	Freshman	Sophomore	Junior	Senior	Freshman A	Freshman B	Sophomore A	Sophomore B
MATH	Applied Math I	Applied Math II	Algebra II		Business Math			
ENGLISH	English I, II, and III and Applied Communication (4 units)				English I	English II	Speech	
SCIENCE	Applied Biology / Chem.	Prinicples of Technology I	Elective					
HUMANITIES	Geography, History, and Government (4 units)							
OTHER	Health / PE			Economics		Psychology	Economics	
OTHER								
TECHNICAL CORE	Keyboarding/ Word Proc.	Computer Basics	Intro. to Business	Business Adm. & Management	Intro. to Business	Business Machines	Credit Procedures	Institution & Philosophies
TECHNICAL CORE		Technical Systems				Prinicples of Accounting	Accounting Applications	Small Business Management
TECHNICAL SPECIALTY				Business Adm. & Management	Sales	Prinicples of Marketing	Fashion Merchandising	Visual Merchandising
TECHNICAL SPECIALTY			General Merch/ Marketing	General Merch/ Marketing		Retailing	Intro. to Buying	Advertising

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4+2 TPAD MODEL: TECHNOLOGY CLUSTER
Electronics/Digital Computer Technician

	HIGH SCHOOL				POSTSECONDARY			
SUBJECT	Freshman	Sophomore	Junior	Senior	Freshman A	Freshman B	Sophomore A	Sophomore B
MATH	Applied Math I	Applied Math II	Geometry or Elective*	Algebra II	Trigonometry	Calculus or Statistics		
ENGLISH	English I, II, and III and Applied Communication				Technical Communications			
SCIENCE	Applied Biology/Chem.	Principles of Technology I	Principles of Technology II		Physics for Technicians			
HUMANITIES	Geography, History, and Government (4 units)						Interpersonal/ Ind. Relations	
OTHER	Health / PE	Computer Literacy		Elective*				Economics in Technology
OTHER	Technology Education	Elective*						
TECHNICAL CORE				Technical Graphics (1/2)		Ind. Processes (Fabrication)	Ind. Electrical Power & Equip.	Instrumentation & Control
TECHNICAL CORE				Electronic Fab. and Testing (1/2)		Properties of Materials	Mechanical & Fluid Devices	Elective #
TECHNICAL SPECIALTY			DC/AC Circuits	Active Devices I	Computer Lang. & Programming	Linear ICs & Analog Circuits	Computer Applications	Digital Devices & Techniques
TECHNICAL SPECIALTY			Circuit Analysis	Digital Electronics	Analog Devices & Systems	Digital Fund. & Circuits	Microprocessors	Digital Computer/ Interfacing

* Fine Arts or Foreign Language, for example
# Introduction to Lasers, for example

F-141

4+2 TPAD MODEL: TECHNOLOGY CLUSTER
Biomedical Equipment Maintenance Technician

	HIGH SCHOOL				POSTSECONDARY			
SUBJECT	Freshman	Sophomore	Junior	Senior	Freshman A	Freshman B	Sophomore A	Sophomore B
MATH	Applied Math I	Applied Math II	Geometry or Elective*	Algebra II	Trigonometry	Calculus or Statistics		
ENGLISH	English I, II, and III and Applied Communication (4 units)				Technical Communications			
SCIENCE	Applied Biology / Chem.	Principles of Technology I	Principles of Technology II		Physics for Technicians			
HUMANITIES	Geography, History, and Government (4 units)						Interpersonal/ Ind. Relations	
OTHER	Health / PE	Computer Literacy		Elective*				Economics in Technology
OTHER	Technology Education	Elective*						
TECHNICAL CORE				Technical Graphics (1/2)		X-Ray & Nuclear Equipment	Ind. Electrical Power & Equip.	Instrumentation & Control
TECHNICAL CORE				Electronic Fab. and Testing (1/2)		Properties of Materials	Mechanical & Fluid Devices	Elective #
TECHNICAL SPECIALTY			DC/AC Circuits	Active Devices I	Chemical Analyzers I	Linear ICs & Analog Circuits	Computer Applications	Life-Support Systems
TECHNICAL SPECIALTY			Circuit Analysis	Digital Electronics	Diag. Recording Instrumentation	Chemical Analyzers II	Gas-Flow Detect./Analyzers	Ancillary Equipment

* Fine Arts or Foreign Language, for example
# Introduction to Lasers, for example

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THE EMERGENCE OF THE TECHNICAL SOCIETY

Unit 4

Emergence of Vocational, Technical, and Occupational
Education in America Summer Seminar

by

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A seminar assignment presented to Nova University in
partial fulfillment of the requirements for the
degree of Doctor of Education

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THE EMERGENCE OF THE TECHNICAL SOCIETY

Review of Literature

As the information (or technological) society swiftly engulfs America's economy, it is essential that vocational education leaders--as well as other education, business, and government leaders--be willing to change their institutions' status quo: they must lead their followers to adopt pioneering policies and procedures, leaving the directives of the industrial society, because

> Between now and the year 2000, a number of powerful economic forces will reshape American jobs and industries. The most important trends will be:
>
> - Continued Integration of the World Economy
> - Further Shifts of Production from Goods to Services
> - The Application of Advanced Technologies to Most Industries
> - Faster gains in Productivity, Particularly in Services
> - Disinflation or Deflation in World Prices
> - Increased Competition in Product, Service, and Labor Markets
>
> (Johnston and Packer, 1:1987).

These economic transitions will directly impact America's future workforce, as the U.S. Departments of Labor, Education, and Commerce discovered through their combined study of various organizations:

> Our nation's economic strength and vitality, our productivity and international competitiveness, depend on our capacity to build and maintain a quality workforce. . . . Our nation is experiencing a widening gap between workplace needs and workforce capabilities, and we need to address this mismatch between the needs of business and the skills of young people leaving our schools (Building a Quality Workforce, 1988:1).

Therefore, if American workers are going to be prepared for their future workforce, vocational educators must prepare students now for the technologies that will be implemented during the students' careers. According to Johnston and Packer (1987), the developing technologies that have the greatest potential of influencing America's future economy are:

1. *Equipment used to store and process information*--artificial intelligence.

2. *Advanced communications* --digital telecommunications network, fiber optics, and videofilm (Parnell, 1990).
3. *Advanced materials*--diamond layering and fortified plastics.
4. *Biotechnologies*--"manipulation of organic processes to make new products" (Parnell, 1990:225).
5. *Superconductivity*--technology that allows electricity to flow without energy loss.

Along with these technologies will come changes to the fundamental reading, writing, and arithmetic skills once required for previous workforces. According to current skill-requirement studies, workers must now possess the ability to:

1. Comprehend the uses of databases: storing, regaining, controlling, and submitting information (Labor Market Information, 1989).
2. Effectively communicate with others (Labor Market Information, 1989). Written skills include composing and editing correspondence, preparing visual aids (charts and graphs), and producing convincing proposals. Oral communication skills include the listening and speaking skills necessary to "explain schedules and procedures, communicate with customers, work in teams, describe complex systems and procedures, teach others, and solve problems" (What Work Requires of Schools, 1991:7).
3. "Read well enough to understand and interpret diagrams, directories, correspondence, manuals, records, charts, graphs, tables, and specifications" (What Work Requires of Schools, 1991:6). In today's workforce, *literacy* encompasses the ability "to find and evaluate needed information so that the reader can function and work as a productive member of society" (Breivik, 1991:28), as well as the ability to read.

4. Use the computational and mathematical skills essential to retain accurate records, correctly estimate end results, and "use spreadsheets" (What Work Requires of Schools, 1991:7).

Because every potential member of the workforce for the year 2000 is either already in the workforce or enrolled in school (Brock, 1991), it is imperative that vocational educators begin the change process now.

Implications

After the joint initiative of the U.S. Departments of Labor, Education, and Commerce (1988) was complete, the members of the task force resolved that if the skills gap between the labor force and businesses were not significantly narrowed--and ultimately closed--America could anticipate an intense deficiency of skilled workers, causing

> employers to: (1) employ under-qualified workers, which could result in inferior product quality, thus reducing our ability to compete in the global marketplace; (2) competitively seek out qualified workers already employed in other companies, thus driving up the wage scales, and reducing our price competitiveness; (3) expend massive resources to remediate workers to bring them up to a productive level; or (4) take the jobs elsewhere, thus reducing American job opportunities and eroding our economic base. None of these options is satisfactory (Building a Quality Workforce, 1988:18-19).

Hence, vocational educators should prepare for and lead the rally to empower American students--of all ages--for the forthcoming workforce by applying the following principles in their curricula.

First, vocational educators and business leaders must *communicate* to fulfill the educational requirements of the technological society (Morrison and Morrison, 1989). This communication could "reduce the need for remedial education on the job" (Skills Lacking, 1990:12) and offer to businesses a source "to increase the skills and develop the aptitudes of persons already in the labor force" (U.S. Department of Labor, 1989:15).

Second, vocational educators must emphasize *life-long learning* to their students. Due to technological advancements, a worker's one-job-for-life career has been replaced by multiple careers: "30% of today's jobs won't exist in 10 years; 50% of jobs today didn't exist 20 years ago; 20 years from now, 90% of the information a worker has to cope with in his job will be created after today" (Workforce Preparation Steps, 1991:13). As a result, lifelong learning is essential for the future workforce. The U.S. Department of Commerce states,

> The pace of technology development now is so great that life cycles for electronics products and processes already have collapsed to three to five years, and rarely will exceed five to ten years in most other industries. As a result, any set of skills also can be obsolescent in five to ten years. Continuous re-skilling must be a top national priority (Building a Quality Workforce, 1988:10).

Third, vocational educators should clearly *apply* to the students' future careers the information or skills being taught. Brock (1991) suggests that students are not excelling in their school subjects because there is neither interest nor visible reward for learning; applying information and skills to real-life circumstances would encourage students to learn.

Fourth, and lastly, because the specific skills required for the technology of the future are not known today, vocational educators must provide in the curriculum a *gamut of fundamental skills*--rather than specific technological skills exclusively--to prepare students to adapt readily to the changes that will occur in their workplaces (Brock, 1991).

These suggestions, although not exhaustive, are rudiments of change that will enable vocational educators to prepare their students to be productive followers and inspiring leaders for the Workforce 2000 . . . and beyond.

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STUDIES ABOUT EDUCATION

IMPROVING POSTSECONDARY VOCATIONAL EDUCATION

Unit 6

Emergence of Vocational, Technical, and Occupational Education in America Summer Seminar

by

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IMPROVING POSTSECONDARY VOCATIONAL EDUCATION

Review of Literature

Technology, economics, demographics--what do these terms indicate to the vocational educator? Change. As America enters the information age, each of these areas is rapidly transforming, and

> It is absolutely imperative that high schools and colleges--particularly community, technical, and junior colleges--become aggressive in examining, developing, and sustaining quality educational programs to serve the great host of Americans who keep this country working (Hull and Parnell, 1991).

However, before the remedies can be developed, the deficiencies in vocational education programs must first be recognized. "Educators need to understand and anticipate the needs of their customers" (A Framework for Evaluating, 1990:9): students and their employers.

Because vocational education programs were primarily founded to prepare students with the prerequisite training and proficiencies necessary to enter the workforce (Sophisticated Technology, 1989), the effectivenss of these programs should first be evaluated in student-workforce preparation. Do employers believe vocational education students are prepared for the workforce today and in the future?

According to the National Alliance of Business, the specific technical skills students learn in their vocational programs are "often conducted with obsolete equipment using outdated methods that are no longer compatible with current processes and practices" (Sophisticated Technology, 1989:49); yet employers state that vocational educators have not reacted promptly to their urgent pleas that entry-level applicants be prepared with *more* than technical skills. As a result, employers request that vocational educators equip students with up-to-date technical skills *and* foundational skills that can be transferred to the new technology they will encounter in their forthcoming careers. Examples of these transferrable skills can be found in the list Feldman presented to the American Vocational Association Convention:

> Good vocational education is not just job training . . . good vocational education includes the very essence of useful education: the ability to read quickly, listen carefully, comprehend easily, write clearly, and calculate accurately. And when these skills are incorporated into a cohesive program, the issue of skill obsolescence is moot (Feldman, 1988:4).

A second division of vocational education to evaluate is the ability of vocational educators to provide quality training for students who "are demographically diverse, drawn from all economic strata, races, age groups, and levels of ability" (Wirt, 1989:99). Vocational education programs should prepare to adjust to the current and predicted demographic changes that will affect America's educational system: (1) overall descending number of youth, (2) increased numbers of minority students, and (3) increased number of adult students (Levine, 1989).

In at least one of these areas, improvement in vocational education must be addressed immediately. Price and Reece (1991) state that adults are responding to changes in their workplace by enrolling in vocational education programs. However, vocational educators may not realize the significance adult students represent to them. "Some 40 percent (over five million) of all college students are now older students--twenty-five years of age and over" (Levine, 1989:116).

> Although adults represent a growing and important market for vocational education, there is some evidence that the vocational education community is unwilling or unable to meet the continuing education needs of this population (Price and Reece, 1991:4).

Adult students--"the fastest growing segment of all the population groups in higher education" (Levine, 1989:116)--therefore, must be considered in the proposed vocational education program revisions.

Implications

Articulation, "the coordination of curricula at different levels of education in order to maximize both the effectiveness and the efficiency of the educational process" (Robertson-Smith, 1990:1)--for example, between secondary and two-year postsecondary schools, and two-year postsecondary schools and four-year colleges or universities--is one recommendation to improve vocational education programs, because articulation:

1. *Improves effectiveness:* graduates entering the next level of curricula are ready to add to their existing knowledge of the subjects because they have already met the prerequisites for the new level (Robertson-Smith, 1990).
2. *Improves efficiency:* course material is not duplicated within the curricula (Robertson-Smith, 1990).

There are generally two distinct types of articulation which can be applied to varying levels within vocational education programs:

1. The *time-shortened* program allows students to "receive formal credit at their current educational level for program or course work successfully completed at a previous educational level and can consequently complete their current educational program sooner" (Robertson-Smith, 1990:2).
2. The *advanced skills* program utilizes the time saved from deleted curricula duplication to teach students advanced skills rather than shortening the length of the program. The *Tech-prep* program, an extention of the advanced skill program, prepares students for technological changes as well as technological skills. (Robertson-Smith, 1990).

Articulation should be considered for vocational education programs because "there are curriculum models already available [and] there have even been follow-up studies of the graduates of such programs" (Feldman, 1988:8) demonstrating that the graduates performed as well as graduates from traditional programs. Thus articulation is a viable option for improving vocational education programs--it aids employers by providing graduates with increased technical knowledge and helps students--including adults--to enter the workforce expeditiously.

Emulating successful vocational education programs is another suggestion for improving postsecondary vocational education. The National Assessment of Vocational Education (NAVE) (1989) organized three hundred employers to compare and contrast postsecondary vocational education programs. As a result of their study, the following suggestions to improve postsecondary vocational education were developed:

1. Avoid the expansive use of federal funds for equipment purchases.
2. Provide students an "equitable access to high-quality programs" (Goodwin, 1989,:34).
3. Develop *2 + 2* and *Tech-Prep* programs.
4. Improve education-business relationships.
5. Develop a system of performance-based incentives for federal funds using the following criteria: educational attainments, occupational competencies, and labor market outcome (Goodwin, 1989).

These proposals--and articulation within curricula--will begin to improve postsecondary vocational education programs, for their future "must include processes and techniques which lead to greater productivity while meeting the needs of its customers--students attending classes and employers who hire graduates and use the services of the school" (Spanbauer and Hillman, 1987:1).

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INTELLECTUAL CAPITAL FORMATION

TECHNOLOGY AND DISTANCE EDUCATION

Unit 7

Emergence of Vocational, Technical, and Occupational Education in America Summer Seminar

by

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TABLE OF CONTENTS

Page

INTRODUCTION 1

HIGH-TECH TECHNOLOGY 2

DISTANCE EDUCATION 4

Definition of Distance Education 4

Benefits of Distance Education 4

Distance Education Delivery Systems 5

Telecommunications 5

Computer-Assisted Instruction 6

Computer-Managed Instruction 6

Computer Teleconferencing 7

Utilizing the Delivery Systems 7

Supporting Distance Education 8

Resources Required 8

Student Services 9

Instructor Qualifications 10

CONCLUSION 10

APPENDICES

A. DISTANCE LEARNING PROVIDERS 11

BIBLIOGRAPHY 13

B. BY THE YEAR 2000 14

BIBLIOGRAPHY 21

TECHNOLOGY AND DISTANCE EDUCATION

Introduction

As America enters the information society, an entry quickened by computer technology, educators must prepare students for the technology-based society they will encounter each day in their careers and personal lives. However, ". . . education has failed to make the transition; we continue to use the methods and materials of the industrial age to prepare our children for life in the rapidly changing information age" (Kinnaman, 1991:21). Therefore, an assessment of the technology of today and the future, along with the essential changes in teaching methodology required for the new technology, is essential to prepare the students of today for the society of tomorrow.

Technology will be the primary change agent of the future school; and Pensacola Christian College (PCC), a four-year liberal arts college comprised of students from fifty states and thirty-six foreign countries, as well as its interrelated ministries (the A Beka Home School, A Beka Video School, A Beka Correspondence School, WPCS Radio, Rejoice in the Lord television broadcast, Pensacola Christian School, and Pensacola Christian High School), is an educational institution that has undoubtedly benefitted from the technological advances in education and manufacturing, as demonstrated by the administrations' utilizing the following technology:

1. Varying levels of Macintosh laser printers and computers--"used more hours per day than IBM PCs in the *Fortune* 100 companies" (Leebaert, 1991:309) due to their interactive qualities--for student, faculty, and office personnel use.
2. An on-line computer system for the new six-story library.

3. The Rejoice in the Lord television broadcast transmitted by NASA's ACTS network.
4. A computerized packing system for the A Beka Book Distribution Center.
5. The Webb printing press for the printing department of A Beka Books.

Because Pensacola Christian College's motto is "Dedicated to Excellence; Committed to Service," it is imperative that the administration and faculty members of PCC understand that to optimize the potential educational improvements for the students of the future, the administration and faculty must continue to employ strategic planning--"integrating short-term plans with long-term objectives" (Kinnaman, 1991:21)--and envision the new frontiers that future technology can introduce to provide to their students the knowledge and skills required to be "excellent" in America's future workforce and citizenry.

High-Tech Technology

First, listed below are technologies that are applicable to the educational goals of PCC and are available either today or by the year 2000 and should be explained to the administration and faculty members of Pensacola Christian (PC [all facets of the organization]):

1. *Videodisc*--(available now) uses a laser to "access video images stored on the 54,000 frames available on each side of a videodisc" (Lowenstein and Barbee, 1990:3). One advantage of the videodisc is that the sound and pictures cannot be altered, as a hard drive or CD-ROM disc can be.
2. *Authoring System*--(available now) allows a computer novice to create instructional software without knowing the computer

language, thereby eliminating the extra costs of hiring a computer programmer (Lowenstein and Barbee, 1990).

3. *Compact Disc-Read Only Memory* (CD-ROM)--(available now) "can store up to 550 megabytes of digital data (about 250,000 typed pages or 1,500 floppy disks)" (Lowenstein and Barbee, 1990:3) and is useful for educational purposes because the material can be manipulated, allowing the student to store graphics, text, pictures, sounds, and successions of color video pictures.
4. *Expert System*--(available now) uses information stored and follows set procedures to solve problems.
5. *Write Once Read Many* (WORM)--(available in the near future) allows the user to write information on the disc.
6. *Optical Magnetic Storage*--(available in the near future) allows the user to erase and revise the disc and contains one billion bytes of memory.
7. *Laser Card*--(available in the near future) a credit-card-sized smart card that contains a maximum of four megabytes of data.
8. *Voice Recognition*--(available in the near future) allows the computer to recognize and follow the instructions of the owner's voice messages.
9. *Neural Network*--(available in the near future) is an area of artificial intelligence that guides circuits to simulate the actions of human brain neurons (Lowenstein and Barbee, 1990).
10. *Virtual Reality*--(available in the near future) is a "technology enhanced environment for learning that is responsive to the user" (Lowenstein and Barbee, 1990:5).

Distance Education

Second, examining the recent and forthcoming developments in distance education are crucial issues for the leaders of PC to analyze; the concept of distance education is not new to these leaders, for many departments within the organization already use some form of distance education; for example, complete elementary-, high-school-, and college-level printed and video correspondence courses. However, realizing the potential opportunities that would increase the effectiveness of PC's ability to provide educational services for more students through distance education would assist the administration as they decide what options to pursue in the future.

Definition of Distance Education

The term *Distance education*

> "has been borrowed from the European terms *Fernunterricht*, *Tele-enseignement*, and *Educasion a Distancia* to describe all teaching learning arrangements in which the learner and teacher are separated, and to focus on the special nature of course design, learning and instruction under such circumstances" (Moore and Thompson, 1990:1).

Benefits of Distance Education

Although distance education may not be appropriate for every student, research studies have demonstrated distinct benefits that distance education has shown when compared to traditional higher education. Distance education:

1. Provides an opportunity for students unable to attend a higher educational institution to obtain a higher education; for example, students who would ordinarily require a babysitter for their children, travel long distances, or spend additional money for hotel accommodations and meals (Norton and Stammen, 1990).
2. Impedes the dropout rate and generates an environment which yields graduates.

3. Offers high-quality educational materials that utilize advanced technology.
4. Allows students to continue working as they complete their course work, potentially increasing the Gross National Product.
5. Lowers the per-student cost of a course when a significant number of students are enrolled (Wilson, 1991).

As these benefits reveal, distance education expands an institution's opportunities to extend its educational influence. Therefore, four primary characteristics of distance education should be considered by the administration and faculty of PC: (1) the new technological delivery systems available for distance education, (2) the applications of distance education, (3) the methods essential to support the distance-education program, and (4) the distinct teaching methodology required for distance education.

Distance Education Delivery Systems

The delivery systems currently utilized for distance education around the world are audiocassette, teleconferencing, and radio; and PC has currently adopted components of these media for distance-educational purposes. Listed below, however, are examples of new technology that can be added to enhance the delivery systems that would help to reach PC's distance-educational goals:

Telecommunications. Telecommunications allow people to communicate from different locations using the telephone, television signals transmitted from a satellite, and information transmitted from computers (Wilson, 1991).

1. *Satellite Broadcasting*--is a process that sends television signals "through an encoder ('uplink') to a satellite. A satellite transponder strengthens the signal for transmission to a decoder ('downlink')" (Wilson, 1991:29); and the audio signals are transmitted along telephone wires, allowing two-way interaction. Although the

equipment and transmission costs of this delivery system are expensive, the total cost of a satellite-broadcasted distance-education course per student is actually less expensive than a traditionally taught class if a substantial number of students are enrolled in the satellite course. In addition, this transmission process is an excellent media for internationally instructed courses (Wilson, 1991).

2. *Compressed Video*--allows two-way video to be broadcasted. Although this method is expensive, as technology continues to advance, the lowered cost for this improved product will allow compressed video to supersede today's telecommunications systems. Also,

   > many feel that in the near future, . . . the implications of two-way video-audio for Distance Education will ultimately mean that the gulf between higher education and Distance Education has virtually been "bridged." (Wilson, 1991:30).

3. *Interactive Video*--combines computer technology with video technology. "The video material (video disc) can be viewed in a traditional way or may be retrieved and mixed with computer-generated text" (Wilson, 1991:30). California State University uses this technology to provide four-year nursing programs to hospitals state-wide.

Computer-Assisted Instruction (CAI). CAI uses the computer to present educational material to the student, who responds to the material by completing the listed directives. This form of technology is appropriate to assist students requiring remedial study (Wilson, 1991:31).

Computer-Managed Instruction (CMI). CMI utilizes computer capabilities to manage the "administrations of individualized instruction. Through the use of modems, institutions can communicate with students, perform testing, and send information or additional material via the computer" (Wilson, 1991:31).

Computer Teleconferencing (CT). CT allows instantaneous communication between individuals using modems connected to the individuals' computers and telephone lines. Immediate feedback is an important factor for distance education (Wilson, 1991).

Utilizing the Delivery Systems

After realizing what types of technology are available for delivery systems in distance education, visualizing their place in the organization's everyday operation is the next phase in preparing the administration and faculty members of PC for the distance-education expansion. To establish the relevance of distance education, presented below are models of distance education instituted by educators around America to:

1. Deliver education to students who, due to a disease or handicap, are restricted to a hospital, an institution, or.their home.
2. Retain students who are at-risk of relinquishing school or failing a course of study.
3. Provide an alternative learning style for students who have difficulty learning from traditional educational methods (Images in Action, 1991).
4. Furnish convenient inservice training for teachers and administrators (Norton and Stammen, 1990).
5. Supply higher education to America's underserved adults populations, adults who are (a) unskilled English-speaking immigrants, (b) "unemployed and underemployed," (c) "functionally illiterate," (d) "high school noncompleters," or (e) "rurally isolated" (Gibson, 1990:83).

6. Retrain varying organizations' workers whose technical skills are obsolescent due to new, developing technology (Spikes, 1990).

Supporting Distance Education

Resources Required. In addition to understanding the technology used for distance education, projecting the auspices needed to maintain a prime distance-education program is crucial. First, a distance-education program requires supporters representing varying technological skills.

> Designing distance learning materials means organizing and controlling the work of many specialists including subject authors, instructional technologists, illustrators, television, recording, and other media specialists, librarians, photo-librarians, and editors. Teams used in Open Universities may be as large as twenty people, and have budgets of several million dollars for one course. The purpose of their work is to structure academic content in a form suitable for study by distant learners (Moore and Thompson, 1990:4).

Although PC may not have the resources for elaborately designed courses requiring all of these technicians, this listing exemplifies the number of participants essential to develop and provide a distance-education program.

Second, support must be provided by

> the computer and telecommunications industries, governments and international agencies, as well as college professors and administrators . . . to recommend and develop standards that enable users to talk to one another easily and instantaneously--across the nation or around the world (Fjeldstad, 1990:9).

According to Fjeldstad, developing a distance-education program would necessitate the leaders of PC to pursue a working relationship with the leaders stated above to influence their decisions regarding technology development or policy implementation that would directly or indirectly influence distance education.

Student Services. Because students and their instructors who are engaged in a distance-learning situation are frequently unable to interact personally, special considerations must be adopted to empower the students to complete the distance-education program. Listed below are suggested strategies that can be implemented for a developing distance-education program:

> 1. A toll-free line where students can call their faculty;
> 2. A class list by course which is broken down by geographic centre with student names and telephone numbers. This list encourages networking;
> 3. A study skills package which is given to all new students enrolled in a distance education course. In addition one evening a week when students can call for study skill advice;
> 4. Evening hours for personal and career counselling; . . .
> 5. Students majoring in Sociology have access to a distance education advisor in that discipline who will meet them at their home or place of employment (Hanrahan, 1991:119).
>
> 6. Study centers are provided by most higher educational distance-education programs as "community-based centers, . . . emphasizing the socialization aspect of learning (involvement in learning), and providing interaction with faculty" (Wilson, 1991:48).

Instructor Qualifications

Because distance education is different from traditional-setting courses, the instructor's role will be altered as well. First, the instructor no longer creates instruction; instead, he or she *manages* the available resources and students. Second, because research studies have shown that "the distance learner considers the interaction with the instructor more valuable than the course content" (Wilson, 1991:42), the instructor should possess the following attributes:

> Imagines what the students need; Inspires the students; Encourages them; Likes people; Is alive; Provides feedback; Motivates students; Skill; Tolerance; Cooperation; Flexibility; Innovation; Two-way written communication; Establishes personal rapport (Wilson, 1991:40).

Therefore, to ensure that the developing and improved distance-education programs at PC are effective, its leaders should consider selecting program instructors who possess personal qualities congruous with characteristics proven to be successful in distance-education settings.

Conclusion

The diverse divisions of Pensacola Christian provide an outstanding foundation for research to be conducted to assist the administrators and faculty members as they decide what types of distance education and delivery systems would be effective teaching instruments to provide the quality education they desire for the 700,000 students they instruct in some form--textbooks, video, or correspondence materials--in the United States and numerous foreign countries. The information in this paper introducing high-tech technology, updated distance education, and delivery systems establishes a premise for the necessary research into distance education that will provide a means for attaining the resolved motto of PC, "Dedicated to excellence; Committed to Service."

APPENDIX A

DISTANCE LEARNING PROVIDERS

Distance Learning Providers

There are literally hundreds of distance learning providers in the U.S. They range from large organizations that serve numerous states to regional and local groups that serve small areas. Below is a sample of providers that are national in scope.

Service	Curriculum	Delivery system	Program recipients (within U.S., except where noted)	Cost to Participants **
Arts & Science Teleconferencing Service (ASTS), Oklahoma State Univ. Stillwater, Okla.; (800) 452-2787	Science, math, foreign language, remedial reading, economics, social studies.	Satellite, computer, local cable, toll-free telephone	42 states	Course fee (no membership fee), equipment, student materials
*Central Education Telecommunications Consortium (CETC), Black College Satellite Network, Washington, D.C.; (202) 737-2405	Math, science, foreign language, inservice.	Satellite, cable	12 states, District of Columbia, and Virgin Islands	Star schools grant participants, no fee; outside users, annual fee, materials; inservice fee
Mind Extension Univ., Jones Education Network, Englewood, Colo.; (800) 777-6463.	High school and college credit courses, non-credit, continuing education, and professional development.	Cable, satellite, videotape	350 cable affiliates carry programming to estimated 15 million homes, some schools	Only cost is for credit courses and materials
Missouri Educational Satellite Network, Missouri School Boards Assoc., Columbia, Mo. (314) 445-9920.	Classroom enrichment, staff development, inservice, special events, and teleconferences	Satellite, some cable	More than 400 downlinks	Fee for full membership or basic program and support; fee for provider guide, some teleconferences
National Science Center: cooperative of federal government, private sector, and academia; Fort Gordon, Ga. (404) 791-7862 or 791-2009.	Science, mathematics, electronics training.	Onsite classes, mail delivery of course materials	10 Southeastern states	No cost
National Technological Univ. (NTU); cooperative of 40 engineering universities; Fort Collins, Colo. (303) 484-6050.	Nine master of science degrees including computer engineering, computer science, and engineering management of technology.	Satellite	350 downlink sites	Subscription fee, equipment, course registration
National Univ. Teleconference Network (NUTN), Oklahoma State Univ. Stillwater, Okla.; (405) 744-5191.	Credit and non-credit courses for universities and their constituencies, staff development, teleconferences, training; also serves business and industry.	Teleconferences via satellite, audio conferences, workshops	250 member universities, plus open to all accredited higher education institutions in the U.S. and Canada	Membership fee, some program fees
*Pacific Northwest Educational Telecommunications Partnership, Education Service District 101, Spokane, Wash.; (509) 456-7660.	Science, math, foreign language.	Satellite	Five states and the Trust Territories of the Pacific	Star schools participants; no fee
*Reach for the Stars, Massachusetts Corp. for Educational Telecommunications, Cambridge, Mass.; (617) 621-0290.	Hands-on science connecting to other areas of education.	Satellite, cable, and broadcast television, teleconferencing, videodiscs, computer-based programs, video	Seven states	Star schools participants, no fee; no outside users to date
*Satellite Educational Resources Consortium (SERC), Southern Educational Communications Assoc., Columbia, S.C.; (803) 252-2782.	Math, science, foreign language, economics, staff development.	Satellite, computer, broadcast, ITFS, some cable and fiber optics	23 states, student programs; 28 states, staff development	State fee to join consortium; two membership levels
Satellite Transmitted Educational Programming (STEP), ESD 101, Spokane, Wash.; (509) 536-0141.	Foreign language, math, principles of science and technology	Satellite, cable, and broadcast television	Nine states	Membership fee, course registration, equipment
*Telecommunications Education for Advances in Mathematics and Science (TEAMS); Los Angeles County Office of Education, Los Angeles, Calif.; (213) 922-6635.	Science and technology, multicultural mathematics, staff development.	Satellite, teleconferencing	Three cities in three states, plus District of Columbia	Star Schools participants, no fee; outside users, call for information
*THN; THN Network Inc., San Antonio, Texas; (512) 490-3900.	Science, math, foreign language, art history, sociology, psychology, literature, marine science, staff development.	Satellite, cable	40 states	Subscription fee, equipment, course registration

*** Denotes recipients of U.S. Dept. of Education Star Schools grants. ** Costs vary greatly, depending on factors such as the number of participants and the equipment already in place at the receiver's site. The major equipment cost is usually a satellite downlink, or dish, which can cost $1,000 and up.**
• Compiled with the help of *Satellite Learning Program and Resource Guide* and the U.S. Dept. of Education, Office of Educational Research and Improvement.

(Bender, 1991:26)

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APPENDIX B

FOR THE YEAR 2000 . . .

For the year 2000 . . .

*The **demographic** projections for the U.S. are:*

- The number of immigrant minorities will rise 12% in Florida.
- For every collegian under 25, there will be one over 25.
- The average age of workers will be 39; it is 36 today.
- Sixty percent of the new workforce entrants will be women.
- Twenty-three percent of the new workforce will be non-white.
- Every fifth worker hired today by American industry is functionally illiterate and innumerate; however, the literacy rate is expected to rise.
- Seventy-five percent of the workforce will require retraining.
- No change is expected in the number of high school graduates; therefore, more than 30% of the black and 50% of the Hispanic adults will not complete high school.
- The number of young workers entering the workforce will decline by 2 million, or 8%.
- One out of every three Americans will be non-white.

The economic projections for the U.S. are:

- Tax-exempt college savings bonds will be commonplace.
- U.S. export industries will greatly improve.
- The full-time work week may be reduced to 30 to 35 hours, requiring benefit-structure revisions.
- The U.S. economy shifts to a service economy, which may lead to less equal wage distribution.
- The number of technical jobs will increase as much as 32%.
- Businesses will assume a financial role in education.
- U.S. manufacturing jobs will continue to decline.
- A baseline scenario suggests that unemployment rates will continue to be high--at a rate just over 7%.
- Personal disposable income will steadily rise at a rate of 1.7% through the year 2000.
- The U.S. budget deficit will decline.
- The U.S. trade deficit will improve.
- Job-related productivity will increase, especially in service-related jobs.
- The U.S. growth will reflect the world's economic growth.
- U.S. inflation will increase 3.3% through the year 2000.
- The U.S. trade with China, Latin America, and India will increase.
- A reduction in raw materials will occur.
- There will be fewer jobs in the durable-goods industries.
- There will be less labor union wage-setting power.
- World markets will become integrated.
- Part-time work will increase.

The ***educational*** *projections for the U.S. are:*

- Technology will allow one-sixth less learning time for students.
- There will be an increased number of U.S. college and university branches in foreign countries.
- The 2+2+2 tech-prep/associate degree/bachelor of technology degree program will be established in high schools and colleges.
- An associate degree will be an important credential for the technical workforce.
- Articulation among secondary schools, colleges, and businesses will be established.
- Twelfth grade will be eliminated from many high schools as the Minnesota post-secondary attendance options program is accepted by more states.
- There will be an increased emphasis on transferrable basic skills as new technology is developed.
- Only 15% of the jobs will require a bachelor's degree, but half will require post-secondary education.
- Large public and private universities will apply enrollment ceilings, causing increased enrollment in community and four-year public colleges.
- Private colleges most likely will not have increased student enrollments.
- Part-time college attendance will increase.
- Child-care centers will be available on urban college and university campuses.
- College enrollments will decrease approximately 8%.
- An increased number of students will enroll in ethnic and intercultural studies.

Educational projections continued . . .

- Students and faculty will use advanced instructional technology in each classroom.
- Student records will be accessible quickly due to data-base networks.

*The **governmental planning** and **political** projections for the U.S. are:*

- Congress will mandate a national human resource development policy.
- Government leaders will support and use the research abilities of universities to promote economic development.
- The federal government will begin and support an International Education Foundation.
- A federal Urban Extension Act will be developed.
- State government leaders will seek support to assist urban colleges and universities.
- Legislators will require educational agencies to be accountable for their agencies' instructional outcomes.
- Federal, state, and local policymakers will guide education by performance standards rather than detailed regulations.

*The **technological** projections for the U.S. are:*

- Any type of message--voice, data, image, or video--will be able to be transmitted to anyone anywhere at any time in the world.

Technological projections continued . . .

- The architecture of information systems related to document formation will not be centralized as it is today; for example, a mainframe or microcomputer. Instead, it will be a workstation-network-server format, allowing vast information sharing.
- Almost all information will be formed in digital form; therefore, all information will be compatible with computers.
- Microcomputers will be as powerful as today's mainframe computers.
- Diagnosing illnesses or writing computer programs may be partially automated.
- Fiber optic links will connect the majority of homes and businesses.
- Advanced materials will allow the lifespan of moving parts and surfaces exposed to damaging conditions to be significantly lengthened.
- Biotechnological advances will improve world agriculture productivity.
- Biotechnology will lower the number of birth defects.
- Superconductivity will reshape U.S. industries--electric devices will shrink; electric-motor efficiency will increase; and electric cars, magnetic trains, and nuclear fusion could be possible.
- Robotics, machine vision, and artificial intelligence will enable nursing home care costs to lower.

Technological projections continued . . .

- The following technology will be available for educational purposes:

  Write Once Read Many (WORM) discs
  Optical Magnetic Storage
  Laser Cards
  Voice Recognition
  Neural Networks
  Virtual Reality

The social projections for the U.S. are:

- The majority of consumers will purchase goods directly from the manufacturer.
- Regulated and subsidized day care pre-school education will be more accessible for working mothers and fathers.
- Schools will be a focal point of the community.
- Strong partnerships among business, school, and government leaders will develop.

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DEVELOPING A THREE-YEAR STUDENT-SUCCESS PROGRAM FOR INTERNATIONAL STUDENTS

Emergence of Vocational, Technical, and Occupational
Education in America Summer Seminar

by

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A seminar paper presented to Nova University in
partial fulfillment of the requirements for the
degree of Doctor of Education

Nova University

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TABLE OF CONTENTS

Page

LIST OF TABLES v

INTRODUCTION 1

SIGNIFICANCE TO THE INSTITUTION 2

- Student Retention Is Essential to the Institution 2
- Academic Success Is Essential to the International Students 2
- Completing the International-Student Acquisition Process Is Ethical 2
- Considering the Special Needs of International Students Is Essential to Guaranteeing the Equality of Academic and Social Opportunities 3
- Developing a Comprehensive International-Student Program Is Cost Effective for the International Student and the Institution 3

Goals and Objectives 3

- Goal 1 4
  - Objective 1 4
  - Objective 2 4
  - Objective 3 4
- Goal 2 4
  - Objective 1 4
  - Objective 2 4
  - Objective 3 4
  - Objective 4 5
  - Objective 5 5
  - Objective 6 5

TABLE OF CONTENTS (Cont.)

Page
Goal 3 5
    Objective 1 5
    Objective 2 5
    Objective 3 5
Goal 4 6
    Objective 1 6
    Objective 2 6
    Objective 3 6
Methodology 6
    Goal 1--Determine the International Students' Needs at PCC 6
    Goal 2--Ease Cultural Differences 7
        American Communication Styles 7
        Everyday-Living Topics 8
        Common American Customs 8
        Study Techniques 8
        Availability of PCC Fax Machine 8
        United States Banking System 8
        Educational and Health-Care Systems of America 9
        United States Governmental Regulations 9
    Goal 3--Increase Instructional Effectiveness 9
        International Students Represent More Time 9
        Speak Clearly and Slowly 10
        Differences in Classroom Conduct 10
EVALUATION--GOAL 4 10

TABLE OF CONTENTS (Cont.)

Page
BIBLIOGRAPHY 12

APPENDICES

A. INTERNATIONAL STUDENT AND STUDENT POPULATION COMPARISON BY YEAR 14
COMPARISON OF INTERNATIONAL-STUDENT AND STUDENT-POPULATION PERCENTAGES OF INCREASE BY YEAR 15
B. PROPOSED BUDGET FOR IMPLEMENTING A STUDENT-SUCCESS PROGRAM FOR INTERNATIONAL STUDENTS AT PENSACOLA CHRISTIAN COLLEGE 17

LIST OF TABLES

Table Page

1. International Student and Student Population Comparison by Year 14

2. Comparison of International-Student and Student-Population Percentages of Increase by Year 15

DEVELOPING A THREE-YEAR STUDENT-SUCCESS PROGRAM FOR INTERNATIONAL STUDENTS

Introduction

As America increasingly becomes a participant in the emerging global society, the number of international students enrolled in American college and university programs has risen from 47,245 in 1958 to 336,354 in 1988 (Dodge, 1990:A33). American college and university administrators are eager to enroll international students in their U.S. campus-based programs because international students (1) frequently pay their tuition without financial aid, (2) help to sustain the number of total students enrolled despite a declining number of graduating high-school students, (3) provide a global outlook for other students enrolled in their courses, and (4) generally achieve high academic achievements because they believe attending college in America is a privilege (Dodge, 1990).

However, once the international students have enrolled and arrive in America, they are not always welcomed with the equivalent enthusiasm and planning the administration and staff demonstrated to the students initially--the consequence of a poorly designed international-student plan of action. One catalyst that leads to these poorly designed and fragmented programs is the practice typically followed by administrators to make isolated policy decisions regarding international students (Groennings, et al., 1991). Therefore, institutions desiring to improve the educational opportunities for international students must incorporate a wholistic approach to their international-student program designs. This suggestion will be the basis for the ensuing three-year plan of action to improve the international student program at Pensacola Christian College (PCC).

Significance to the Institution

For the past three years, the number of international students and countries they represent has risen steadily at PCC, as Table 1 and Table 2 in Appendix A indicate. Because the number of international students enrolled at PCC is increasing at the 1993 estimated level of 52 percent when compared to the 1992 enrollment figures, the academic committee should resolve to enhance the programs and services provided for PCC international students based upon the following rationales:

1. *Student retention is essential to the institution.* If international students are not satisfied with their programs or services, they may decide to obtain their education elsewhere (Kinnell, 1990); in addition, if they are not satisfied with their reception at PCC, they will not promote the institution to potential students in their home countries. Both of these scenarios would result in a financial and reputational loss for the institution.
2. *Academic success is essential to the international students.* When faculty members do not consider the unique academic and social backgrounds international students represent in the classroom, the international students may not realize the academic fruition they could have attained had the instructor considered their distinctive student needs (Kinnell, 1990).
3. *Completing the international-student acquisition process is ethical.* Because PCC initiated the international-student recruitment program, all faculty and staff members should maintain a service attitude from the day the international students arrive on campus to the day they

participate in the commencement exercises (Cheng, 1990; Carpenter, 1991).

4. *Considering the special needs of international students is essential to guaranteeing the equality of academic and social opportunities.* Without constructing an orientation agenda to assist international students during their adjustment period to the American academic and cultural settings, the administrators, faculty, and staff are potentially hindering the ultimate academic and social success of PCC's international students (Althen, 1984).
5. *Developing a comprehensive international-student program is cost effective for the international students and the institution.* When international students are academically and socially successful at PCC, their desire to complete the academic program is strengthened; therefore, the potential financial returns of their educational investment of time and money will be increased (Kinnell, 1990). Furthermore, as a comprehensive international-student program is implemented at PCC, the yield of the institution's money invested into the proposed program can be increased from the ensuing revenue of continuing and enrolling international students. (A budget for the comprehensive international-student program is proposed in Appendix B.)

Because these rationales are legitimate issues to be considered, the following list of goals and accompanying objectives has been devised.

Goals and Objectives

The primary purpose of this proposal is to develop in three years an international-student success program that will achieve its goals by utilizing the corresponding objectives in each sequential year. Implementation of these objectives is essential because it is PCC's obligation to ensure that its international students receive "the services they need to make their experiences . . . successful and effective" (Carpenter, 1991:166). To increase the effectiveness of PCC's international-student program, the program developers will:

Goal 1

√Determine the international students' needs at PCC.

Objective 1. Develop and administer a *valid questionnaire* to
Y currently enrolled international students to gather their
E comments and suggestions regarding PCC's
A international-student program.

R Objective 2. Seek *model programs* for guidance in developing and improving the international-student program.

1 Objective 3. Organize *round-table discussions* among faculty members, staff members, American students, and international students to understand better the international students' varying backgrounds.

Goal 2

Y √Ease cultural differences.

E Objective 1. Develop a *meeting schedule* for international-student
A gatherings throughout the school year.

R Objective 2. Provide an *accessible, private* location for international telephone calls.

1 Objective 3. Suggest that the PCC library periodically *subscribe to foreign newspapers*.

YEAR 2

Objective 4. Develop an *orientation-meeting agenda* for all incoming international students.

Objective 5. Develop a *pre-arrival information packet* to be administered to all new international students.

Objective 6. Develop a *host program* combining the resources of interested campus parents, faculty members, roommates, and junior and senior international students.

Goal 3

√Increase instructional effectiveness.

YEAR 2

Objective 1. Develop a *faculty meeting agenda* to explain special teaching techniques that will cultivate academic success for international students.

Objective 2. Develop an *international manual* for faculty and staff members that describes common teaching practices, customs, and cultural traditions of foreign countries represented by PCC's international students.

Objective 3. Seek new *delivery systems* for the *library* to improve the educational link between international students and their home countries.

Goal 4

√Evaluate the comprehensive student-success program in Year 3.

Y Objective 1. Revise and *administer* the initial *questionnaire*.
E Objective 2. Evaluate and *compare the results* of the two
A questionnaires.
R Objective 3. Implement all feasible, recommended *improvements*
from the international students' responses to the second
3 administered questionnaire.

Methodology

To accomplish the desired goals and accompanying objectives for the international students' program at PCC, the subsequent proposed methodologies, which have been conceptualized primarily from exemplary international students' programs in colleges and universities throughout America and abroad, will be considered for implementation by PCC's Academic Committee. However, before recommendations for improvement can be surmised, a comprehensive assessment of PCC's present international-student policies and procedures is essential. This information may be procured from the following personnel: the admission's counselor, assistant to the president, international students' advisor, vice president for public affairs, and vice president for academic affairs.

Goal 1--Determine the International Students' Needs at PCC

First, a questionnaire would be developed to accomplish Objective 1 to determine the improvements PCC's international students believe should be incorporated into the international-student program. The items for the questionnaire will be derived from reviewing literature conveying common apprehensions international students have expressed in analogous studies (Kinnell, 1990; Groennings, et al., 1991), as well as from information distributed by the National Association for Foreign Student Affairs (NAFSA); this process would also complete Objective 2. Second, to fulfill Objective 3, Althen's The Handbook of Foreign Student Advising and Kinnell's (1990) "The Learning Experiences of Overseas Students" present model formats to pattern the round-table discussions.

Goal 2--Ease Cultural Differences

Objectives 1, 2, and 3 were developed from PCC's international students' responses to a preliminary survey designed to establish a foundation for improving PCC's international-student program. These student services have also been observed at the University of West Florida campus in Pensacola, Florida.

Althen (1984), the College Examination Board (1991), Kinnell (1990), Dodge (1990), and Carpenter (1991) suggest topics to be discussed in the orientation meetings and orientation packets for Objectives 4 and 5. Specific orientation meeting content would include subjects as:

1. *American communication styles*. To illustrate, "Americans prefer to talk [with new acquaintances] about the weather, sports, jobs, mutual acquaintances, and past experiences" (Althen, 1991:177) because Americans are taught not to discuss personal topics as politics and religion; however, "by contrast, people in some other cultures are taught to believe that politics and/or religion are good conversation topics, and they may have

different ideas about what topics are too personal" (Althen, 1991:177).

2. *Everyday-living topics.* Examples of these subjects would comprise "finding your way about, finance, shopping, . . . [and] social customs" (Kinnell, 1990:21).
3. *Common American customs.* Explaining to the international students the purpose of celebrated holidays, methods Americans use to develop friendships, frequency and types of meals, dating traditions, and routines used in a classroom setting (Dodge, 1990) will help them adjust more easily to the American culture.
4. *Study techniques.* Because international students represent diverse educational backgrounds, these students may require a general overview of the varying study habits that are essential to succeed in the American educational system. For example, a recent study revealed that "15% said that research was new to them, while 10% also noted that writing essays and reports was unfamiliar" (Kinnell, 1990:22).

The orientation packets described in Objective 5 would contain details that international students should read before leaving their home countries to arrive in the United States and would be sent along with each international student's acceptance letter. The proposed orientation packet would explain the:

1. Availability and use of the *PCC fax machine* for receiving documents from their home countries.
2. *United States banking system*, give instructions to send money to the college only in U.S. dollars, and offer the advice to *not* carry

large amounts of cash while travelling to America (a 1991 international student arrived on campus with $7,000 in cash).

3. *Educational and health-care systems* of America (College Entrance Examination Board, 1991).
4. *United States governmental regulations regarding work* opportunities in America.

An additional method to ease cultural differences for international students attending PCC would be to provide a host program, as stated in Objective 6. This program would be patterned after the Hospitality Club already available for first-time freshman attending PCC; however, the hosts (campus parents, roommates, or upper-classification international students) would be (1) specifically interested in the country the international student represents, (2) from the home country of the student, or (3) able to speak the native language of the student.

Goal 3--Increase Instructional Effectiveness

Before PCC's faculty can improve their instruction to international students, there must be an understanding of the unique needs international students represent. To enlighten the faculty of the distinctive requirements of international students, a faculty presentation would be developed to achieve Objective 1. Topics to be included in the discussion are:

1. International students may represent "a greater time commitment than home students" (Kinnell, 1990:30) because they (1) need assistance in English, (2) have varying study habits and educational backgrounds, and (3) tend to expect to have tutors available for themselves (Kinnell, 1990).

2. *Speaking slowly and clearly*, using visual aids, and providing written summaries of main points (Kinnell, 1990; Ebuchi, 1988).
3. Realizing that some cultures consider "*asking questions* of college administrators or other adults" (Dodge, 1990:A36) to be *rude*.

The information for the international manual described in Objective 2 would be gathered from PCC's library and interviews with current international students. The manual would be available in the library for all faculty and students' use and would include common facts [name order, marriage customs, family life, caste systems, common religious beliefs, and work habits (Thomas, 1981)] about each country represented by currently-enrolled international students.

Because "satellite and computer technologies permit instantaneous and interactive communication around the world" (Groennings, et al., 1991:123), PCC's library can be another source of support for international students. With the proper equipment, international news broadcasts could be viewed, and international library resources could be shared--both are examples of channels available to accomplish Objective 3.

Evaluation

Goal 4--Evaluate the Comprehensive Student-Success Program

After the objectives for Goals 1, 2, and 3 have been achieved, each added dimension of PCC's international-student program would be evaluated to measure the effects of the changes. A questionnaire similar to the initial questionnaire would be administered, and the results of the two questionaires would be compared. Any suggested improvements from the second administration would be considered at that time to continue improving the program; for "leadership in policy development is needed.

Planning enlarges opportunities for effective adaptation to a shrinking world" (Groennings, et al., 1991:125).

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APPENDIX A

INTERNATIONAL STUDENT AND STUDENT POPULATION COMPARISON BY YEAR AND COMPARISON OF INTERNATIONAL-STUDENT AND STUDENT-POPULATION PERCENTAGES OF INCREASE BY YEAR

Table 1

INTERNATIONAL STUDENT AND STUDENT POPULATION COMPARISON BY YEAR

Year	Total Number of Students	Total Number of International Students	Total Number of Countries Represented	Percentage of International Student Increase
1990	------	--	--	N/A
1991	------	--	--	--%
1992	------	--	--	--%
1993 (est.)	------	--	--	--%

Table 2

COMPARISON OF INTERNATIONAL-STUDENT AND STUDENT-POPULATION PERCENTAGES OF INCREASE BY YEAR

Year	Percentage of Increase for International Students	Percentage of Increase for Student Body
1990	N/A	N/A
1991	--%	--%
1992	--%	--%
1993 (est.)	--%	--%

APPENDIX B

PROPOSED BUDGET FOR IMPLEMENTING A STUDENT-SUCCESS PROGRAM FOR INTERNATIONAL STUDENTS AT PENSACOLA CHRISTIAN COLLEGE

PROPOSED BUDGET FOR IMPLEMENTING A STUDENT-SUCCESS PROGRAM FOR INTERNATIONAL STUDENTS AT PENSACOLA CHRISTIAN COLLEGE

Estimated Cost for Each Proposed Objective of Goal 1

Objective 1

Develop a valid questionnaire

*Man hours for library research time	
4 hours (including traveling time) x $16/hr.	$64.00
*Printing	
Supplies, fixed costs, and man hours to print 200 copies of a one-page, colored questionnaire at $0.06 each	12.00
TOTAL	$76.00

Objective 2

Seek model programs

*Man hours to compose, edit, and keyboard 20 letters using word processing equipment	
$11 for the first dictated letter	$11.00
$0.06 x 20 for materials for the 20 letters	1.20
Secretarial services for 1 person 1 hour to print, collate, and mail the 20 letters	7.50
First-class postage for the 20 letters	5.80
TOTAL	$25.50

PROPOSED BUDGET (Cont.)

Objective 3

Organize round-table discussions

*Facilities would be provided by the institution; therefore, the costs would only include the fixed charges required for the duration of the meeting	$20.00
*The announcement would be made during a college assembly; therefore, there would be no additional charges for notifying the students and faculty.	
*Man hours to design a format for the meeting	60.00
TOTAL	$80.00

Estimated Cost for Each Proposed Objective of Goal 2

Objective 1

Develop a meeting schedule

*Man hours to design a schedule for the meeting	$60.00

Objective 2

Provide an accessible, private telephone

*Man hours, equipment costs, and supplies to wire a telephone in a new location	$65.00
*The facility would be provided by the institution; therefore, the costs would only include the fixed charges required for an 18-hour period each day	$50.00/day

Objective 3

Subscribe to foreign newspapers

*The price would depend upon the frequency of delivery and the originating country. Information can be obtained from the publication The World Book of Knowledge.

Objective 4

Develop an orientation-meeting agenda

*Man hours to design a format for the meeting agenda	$ 60.00

PROPOSED BUDGET (Cont.)

Objective 5

Develop a pre-arrival information packet

*Man hours to write the information to be included in the packet	$180.00
*The information packet would include 3 printed sheets of paper ($.04 each) and a large envelope ($.05 each) x 150	25.50
*Secretarial services for 2 people 1 hour to collate and address the 150 packets	15.00
*First-class mail--50 cents for all foreign countries except Canada (40 cents) and Mexico (35 cents) x 150	75.00
TOTAL	$295.50

Objective 6

Develop a host program

*Man hours to design the program	$200.00
$11 for the first dictated letter	11.00
$0.06 x 150 for materials for the 150 letters	9.00
Secretarial services for 2 people 2 hours to print, collate, and mail the 150 letters	15.00
TOTAL	$235.00

Estimated Cost for Each Proposed Objective of Goal 3

Objective 1

Develop a faculty meeting agenda

*Man hours to design a format for the meeting agenda	$ 60.00
*Fixed charges for the facility	10.00
TOTAL	$70.00

Objective 2

Develop an international manual

*Man hours to write and design the manual	$200.00
*Manual of five pages x 150 faculty members	$300.00

PROPOSED BUDGET (Cont.)

Objective 3

Seek new delivery systems for the library

- *The costs to purchase new delivery systems
- *The costs to train the personnel, faculty, and staff to use the new equipment
- *The costs to maintain the equipment

Estimated Cost for Each Proposed Objective of Goal 4

Objective 1

Administer a second questionnaire

*Man hours for library research time 4 hours (including traveling time) x $16/hr.	$64.00
*Printing Supplies, fixed costs, and man hours to print 200 copies of a one-page, colored questionnaire at $0.06 each	12.00
TOTAL	$76.00

Objective 2

Evaluate and compare results

*Man hours to evaluate the results	$160.00

Objective 3

Implement all feasible improvements

- *The costs would be determined by the number and type of improvements to be implemented

A REFOCUSING OF THE EDUCATIONAL PROCESS IN HEALTH OCCUPATIONS AT SARASOTA COUNTY TECHNICAL INSTITUTE

by

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TABLE OF CONTENTS

Page

INTRODUCTION 1

BACKGROUND 1

RATIONALE 2

ACTION PLAN FOR REFOCUSING 6

EVALUATION 15

CONCLUSION 16

REFERENCES 17

INTRODUCTION

The processes and practices of delivering instruction have been modified only slightly throughout the century even though a great deal of research has documented the need for change. The purpose of this paper is to synthesize theories or concepts related to adult learning styles and needs, combine those with projected work force needs and propose an action plan for the refocusing of the educational process in Health Occupations at Sarasota County Technical Institute. The primary impetus for refocusing is an attempt to emphasize quality, using principles of total quality commitment, and is essential at this point in time because of tremendous growth in the division and the emergence of new technologies which can allow faculty to better serve individualized student needs.

BACKGROUND

The effort to refocus the educational process of the division to a quality based approach should not be interpreted as an attempt to solve serious problems within the system. Quite the contrary exists. The division hosts twelve health care education programs offered in a variety of learning formats. The programs prepare approximately eight hundred students for employment in allied health fields every year and provide continuing education to an additional three thousand students. The job preparatory programs have been very successful in meeting market demands of the area and is preparing high quality graduates. Most of the programs are accredited by their professional accrediting agencies and adhere to high performance standards. The challenges to the organization that are necessitating a refocusing effort include an expanding applicant pool, diverse learning needs of students and a growing workplace emphasis on critical thinking and decision making.

RATIONALE

The Health Occupations division of Sarasota County Technical Institute has been evaluated through various sources as a rapidly growing, progressive unit which is ready for change toward a more technologically advanced organization. The division has urgent needs to automate some of the administrative functioning of the programs. Instructors need to expand their use of instructional technology to take advantage of what is available to assist students of varying backgrounds to learn in the most efficient and productive manner possible. The division must focus more intently on the needs of the future using multiple perspectives. Faculty and staff need to identify and use technological trends to more completely meet employment, student and organizational demands.

Students in the vocational education offerings at Sarasota County Technical Institute are predominantly adult and enroll in programs for very specific reasons. Usually these students are very goal directed and have a great deal of internal motivation to succeed. These reasons may result from immediate needs for employment or may result from long term career aspirations which were postponed for child rearing or other responsibilities. Concepts of adult learning theory stress that it is important to returning students to be able to draw on their life experiences and to be goal oriented in the attainment of their objectives. This theory correlates well with intrinsic motivation and appears to be relevant to the students at Sarasota County Technical Institute. Most postsecondary students are in school for very identifiable reasons and are motivated to be successful from the beginning. Doll (1986) emphasizes that appropriate instructor response to that motivation would be to behave flexibly, individualize teaching to student needs, maintain an accepting attitude toward students, sequence study to be goal oriented and use nonverbal acknowledgments of student success. Concept development can occur rapidly in a learning environment in which achievement is recognized and success of students is the goal. Once students begin to develop concepts, they are much better able to grasp new content and material and their learning, consequently, expands exponentially.

Learning style concepts have received increased attention from educators over the last several decades. Kolb (1984) has defined learning style as "acquired, consistent pattern of learner-environment interaction." According to Kolb, learning style is a combination of two of four learning processes: active experimentation (doing), reflective observation (watching), concrete experience (feeling), and abstract conceptualization (thinking). Each individual uses these processes in unique ways to master skills and content.

Other authors have described learning style in other terms but all address similar concepts in that different people learn in different ways. Authors typically agree that learning style is not altered with life experiences and is consistent across the life span. Research supports the innate inalterability of learning style.

Historically, educational institutions have acknowledged awareness of learning style concepts but have maintained a rigid adherence to traditional curriculum delivery methods. Most of the time, even now, when learning styles of students are known, there is little attempt to modify curriculum or instructional delivery. Standard lecture halls predominate the educational system and do adequately meet the needs of some students. Students who learn best in auditory modes and through abstract conceptualization will undoubtedly learn easily in a lecture-oriented environment. If, however, a student can learn only through experimentation and visualization, a lecture-oriented system will only frustrate the learner. Intelligence is not at all related to learning style and yet educators can very easily mistake lack of learning for lack of intelligence when, in fact, what is actually occurring is a lack of congruence between learning style and content delivery methods for the student. The present day educational system can take advantage of instructional technologies which meet the needs of a wide variety of students having different learning styles.

External challenges to the organization also exist in the form of new workplace demands. In 1990 the United States Department of Labor requested a student to determine the demands of the workplace and the capability of young workers to meet those demands. The results of the study were released in 1991 and have been known as the Secretary's Commission on Achieving Necessary Skills (SCANS). This document is serving as the primary resource for implementing needed educational reform throughout the United States and is targeting an area of reform that many consider the salvation of American education---integration of academic and vocational curricula. The report identifies five competencies common to all workers and includes resources, interpersonal skills, use of information, understanding of systems and technology. Three interrelated foundations serve to guide curriculum development in all areas attempting to answer the challenge of SCANS and those deal with basic skills, thinking skills, and personal qualities. Rumberger (1984) reported several years ago that today's workers were unprepared for the labor market even if they possessed advanced degrees. Braden (1987-88) examined factors that effect the current and projected work force and found that technology was one of the most significant of those factors. Major trends in the United States have been identified by Cetron, et al. (1988) and are supported in the findings of the SCANS report in that the future appears to hold much more dependence upon knowledge and information, more technological dominance, expansion of education, increased specialization, decline in manufacturing and changing characteristics of workers. More minorities, women, and culturally-diverse individuals are anticipated in the workplace. All of these factors tend to impact educational institutions and challenge them to function in different and creative ways to meet the workplace needs.

Educational administrators must lead faculty in the use of new technologies in delivering instruction. As the employing community demands more of the educational system and resources for meeting those demands continue to shrink, educators must look to more efficient means for assisting students to meet educational goals. No longer will educators be afforded adult students with school as their only priority. The demographics of the postsecondary student population are rapidly shifting to an older, working, non-English speaking, minority group. The learning needs of such a population are diverse and cannot be met with traditional tools. This population has multiple demands upon their time and energies and are demanding education which is meaningful for employment preparation. Vocational educators have traditionally been in the forefront of education in using new technologies in the classroom. Administrators must urge vocational educators to continue with this practice by acting as role models in the use of technologies, providing technological resources for staff, and by educating staff in the use of new methodologies in the classroom. Vocational educators have long recognized the value of active learning and must now be assisted to incorporate newer systems of learning in their fields. Since software continues to be produced at slow rates and in variable quality, instructors must be assisted in selecting appropriate materials and equipment for use in the classroom and should be held accountable by administrators for evaluating the effectiveness of various teaching methods on the learning of different student populations.

ACTION PLAN FOR REFOCUSING

The efforts of the Health Occupations division will be aided significantly by the coordination of tasks with the Institute's Media department. Since one administrator is responsible for both areas, the task of refocusing should be a concerted, integrated one using various talents from the two areas. The following charts briefly summarize the goals and objectives of the educational process refocusing effort.

Sarasota County Technical Institute

Educational Refocusing Action Plan
Health Occupations

GOAL 1: Provide a work environment in which staff function efficiently and productively.

OBJECTIVE 1.1 To formally assess the workload and roles within the Health Occupations Division.

	Year 1	Year 2	Year 3
Method	Develop an instrument to itemize workload tasks, duties, responsibilities. Instruments to be designed for Instructor, Aides, Secretaries, Administrators and volunteers.	Investigate resources, automated systems for workload management. Contact similar programs in state for recommendations. Use consultant services.	Pilot selected hardware, software for some workload functions. Recommend purchases.
Evaluation	Tool will be developed. Information will be gathered. Data will be summarized. Needs for improving efficiency will be identified.	SCTI needs will be matched with available resources. Bids from vendors will be secured.	Piloted functions will be assessed for ease of use, time efficiency and accuracy. Final proposal for an automated system will be implemented.
Budget	Secretary, Administrator time (worth approx. $1,000 but no allocation needed).	Staff, secretary, Administrator time (no separate allocation). Consultant - $1,500	Approximately $25,000 for hardware, software, training.

Sarasota County Technical Institute

Educational Refocusing Action Plan
Health Occupations

GOAL 1:

OBJECTIVE 1.2 To prepare staff to function more efficiently and productively.

	Year 1	Year 2	Year 3
Method	Stimulate awareness of workload inefficiency and potential for growth.	Increase utilization of technology in workload using available materials.	Complete a transition to automated functioning.
	Involve staff in vision development for high-tech office/classroom.	Preview newly developed materials.	
	Make site visits to other areas in district and surrounding counties.	Staff attend workshops and seminars.	
Evaluation	Staff will verbalize need for more technology.	More use of software/hardware in programs.	Office and instructional tasks will be streamlined using automation.
	Expanded use of existing technology will occur.	Test generation on computerized test bank will be seen.	Reports can be generated with ease.
	More preview materials requested by staff.	Test grading system will be in place.	Tests can be generated for each student.
Budget	Preview materials - $500. Visits to other sites - $100.	Test generator/grading system with training - $5,000.	Complete the purchase of the automated systems. (budgeted with Objective #1)

Sarasota County Technical Institute

Educational Refocusing Action Plan
Health Occupations

GOAL 2: Provide an educational environment in which students are able to use multiple modalities to achieve competencies according to their individual learning styles.

OBJECTIVE 2.1 To provide an avenue for determining learning styles of students.

	Year 1	Year 2	Year 3
Method	Pilot available software for determining learning styles. Investigate alternative resources for determining learning style.	Develop the program of assessment using a select group of students.	Implement learning style assessment with all Health Occupations students prior to program entry.
Evaluation	Recommended purchase of software.	Use software to diagnose learning style. Interpret analysis to students.	Students will use software prior to entering program and bring information with them into the program.
Budget	Software - approx. $1,000.	None.	None.

Sarasota County Technical Institute

Educational Refocusing Action Plan
Health Occupations

GOAL 2:

OBJECTIVE 2.2 To train staff in developing instructional strategies for different learning styles.

	Year 1	Year 2	Year 3
Method	Inservice staff on use of diagnostic software and interpretations.	Inservice staff on use of various strategies geared toward specific learning styles.	Implement instructional plans using strategies aimed at specific learning styles.
	Investigate with staff the implications of data gathered from assessments.		Utilize high tech modalities to deliver instruction.
Evaluation	Literature search will be completed.	More strategies will be used in classrooms.	Students may choose method of delivery to complete course objectives.
	Inservice classes or readings on alternative instructional modes.	Students will verbalize learning is more effective, easier.	Competencies are achieved by students using any of several high tech or traditional modes.
Budget	Literature review and reprints - $100.	TEC provide inservice and research materials - no cost.	Preview costs - $200.

Sarasota County Technical Institute

Educational Refocusing Action Plan
Health Occupations

GOAL 2:

OBJECTIVE 2.3 To modify the learning environment to deliver instructional material in a high-tech format.

	Year 1	Year 2	Year 3
Method	Investigate available hardware and software for use in high-tech classrooms.	Pilot instructional strategies using high-tech, multi-media formats with small groups of various learning styles.	Implement full curriculum in programs incorporating high-tech instructional modalities.
	Preview materials available in interactive formats.		
	Recommend hardware and software purchases.	Compare success of students in pilot groups with traditional groups.	Individualized learning plans are implemented.
Evaluation	Vendors will be selected.	Learning enhancement will occur.	Students curriculum delivery is based upon learning style.
	Bids will be secured for development of high-tech, multi-media environments.	Students achieve greater success.	Increased satisfaction and learning of students.
Budget	Hardware, software - $25,000.	Modify software - $5,000.	None.

Sarasota County Technical Institute

Educational Refocusing Action Plan
Health Occupations

GOAL 3: Utilize quality as the basis for evaluating all aspects of the educational refocusing effort using concepts of total quality commitment.

OBJECTIVE 3.1 To acquaint staff and students with the philosophy and processes of total quality commitment.

	Year 1	Year 2	Year 3
Method	Provide resource materials to staff on concepts of TQC in the educational setting.	Encourage integration of concepts of TQC in the classroom context.	Involve students in a leadership role in TQC in classrooms.
	Instructors will be encouraged to visit schools and industries where TQC is practiced.	A model of TQC use in the classroom setting will be implemented.	Students will be a vital component of the TQC process.
Evaluation	Staff will begin using terms associated with TQC.	Several programs will embrace TQC in their class settings.	TQC will be evident in all classrooms.
	Concepts of quality in health care will be initiated in isolated curriculum.	Most curricula and outcome measures will include concept of quality.	All health occ curricula will incorporate quality commitment as a major theme.
Budget	Videotapes, article reprints - $500 approximate costs	Speaker for inservice on implementing TQC concepts - $500	None

Sarasota County Technical Institute

Educational Refocusing Action Plan
Health Occupations

GOAL 3:

OBJECTIVE 3.2 To adopt total quality commitment as the basis of functioning for the Health Occupations division.

	Year 1	Year 2	Year 3
Method	Present concepts of quality as the basis of functioning at each staff meeting. Involve students in dialogue with staff on issues of quality.	Use quality as basis of program evaluation. Assess all aspects of a program from the perspective of quality.	Make program changes based upon quality assessments.
Evaluation	All faculty will use terms associated with TQC when discussing their programs.	Students and staff will recommend division changes based upon assessments.	Program changes will be reflected in all materials and approaches.
Budget	None needed.	Staff time for developing and implementing assessments - $1,000	Faculty and support staff time in making program changes (no separate allocation).

EVALUATION

A plan can only be evaluated in terms of the manner and extent to which it is implemented. A vision can be developed, a dream can be created but a plan demands action and purposeful implementation. The administrator of the Health Occupations/Media division of the Institute has the unique opportunity to lead a group of very talented, very bright individuals into a higher level of functioning. The acknowledgment "up front" must be that the new level must not be construed as easier, less-time consuming or less personally demanding. On the contrary, as staff learn to use newer technologies and quality concepts and begin to grow professionally, the anticipated outcome is more time commitments, more difficult situations to solve and more demands. The overriding outcome, however, is one of increased satisfaction and success of both staff and students. The human development potential is beyond prediction at this time.

As the years progress and the identified plan is implemented, evaluation will be the most significant factor in determining the success of implementation. Each step in evaluation is crucial to the plan. Each step must be addressed to determine the appropriate time to proceed to the next step. Refocusing the educational process in a planned, methodical approach demands this periodic assessment to allow for alterations needed in accommodating individual staff and student differences. That "human" element to educational reform is the critical success element for assisting a staff to grow and develop professionally.

CONCLUSION

Studies have demonstrated the value of coordinating student learning style with instructional technologies and now employers are demanding that workers be better educated for the emerging industries. Information processing is the trend of the future and educators have been slow to respond to the needs as they hold tightly to the practices of the past. No longer do educational institutions have the luxury of nonproductive time. Every instructional minute needs to be tied to goals of high level learning, employability skill development and quality assessment. This time may be divided between hands-on investigation and problem-solving and study of the theory underlying and particular skill. Technology is providing instructors and students with the means to meet many of the challenges of the anticipated work force of the year 2000.

A refocusing of the educational process at Sarasota County Technical Institute in the Health Occupations division will allow experienced staff to take a leap forward with new technologies to emphasize quality and serve students in more individualized ways.

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DEVELOPING A TOTAL QUALITY LEARNING ENVIRONMENT

E-VTO

by

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TABLE OF CONTENTS

Page

INTRODUCTION AND RATIONALE 1

METHODOLOGY 2

YEAR ONE 3

YEAR TWO 4

YEAR THREE 6

CONCLUSION 6

BIBLIOGRAPHY 8

APPENDICES

- A. GOALS AND OBJECTIVES 9
- B. TWELVE PRINCIPLES OF TQM 11
- C. KEY BENEFITS AND FRUSTRATIONS/PROBLEMS OF TQM 13
- D. ENROLLMENT PROCESS FOR THE ADULT EDUCATION AND TRAINING PROGRAM 15

INTRODUCTION AND RATIONALE

In order to prepare workers to effectively produce a product or render a service that will meet the demands and expectations of the twenty-first century workplace, it will be necessary to review the current education system of the Adult Education and Training Program of Mercer County Community College. Particular attention will be paid to the Career Training Institute. Strengths and weaknesses will be assessed and the education program will be revised and/or developed so that total quality workers can be prepared for the workforce of the future. The philosophy of the total quality management approach as developed by Deming will be used to create a total quality learning environment (TQLE) in the Career Training Institute.

The Career Training Institute provides short-term, intensive training programs (six months in duration) in automated office careers, computer operations, and microcomputer repair. A "brush-up" component is also available for students who desire training but lack the necessary reading and mathematic levels required for the training of choice. Job placement services are provided.

The workplace must be continuously monitored to determine shifts in skills and knowledge needed by workers. Each training program must also be periodically reviewed to ensure relevance with the demands of the workplace. Training must be modified when needed to ensure continuing relevancy to the needs of the surrounding employment resources.

In addition, care must be taken to carefully match student interests and ability. The intake and assessment processes play a critical role in ensuring both student and program success. All issues which affect student learning and success must be addressed and potential barriers must be removed or, at the very least, controlled.

Finally, the faculty and staff must receive orientation in and gain familiarity with the concept of total quality management. With this knowledge, the program's curriculum and instruction can be responsive to both student and workforce needs.

In order to accomplish this mission, the following goals must be met:

1. Facilitate Total Quality Leadership (TQL)
2. Create a Total Quality Enrollment process (TQE)
3. Institute in-field research procedures
4. Provide Total Quality Instruction (TQI)

The accomplishment of these four goals will ensure the attainment of the long-range goal of the Career Training Institute: To create a Total Quality Learning Environment in the Adult Education and Training Program of Mercer County Community College. A complete list of goals and objectives can be found in Appendix A.

METHODOLOGY

"TQM means dedication to bring the best; to delivering high quality services which meet or exceed the expectations of the Customer" (Further Education Unit, 1991).

The methodology to be used to reach the stated goals will be the implementation of the concepts of total quality management (Appendix B). This approach uses the knowledge that every worker possesses about his or her job. Each employee is taught how to assess processes, measure quality, and participate in continuous improvement (Heverly, 1991).

Most importantly, however, the student is considered to be the prime external customer with employers considered to be a secondary customer. The primary focus is that the student's learning needs, requirements, and expectations must be met.

While there are many benefits to using TQM, there is resistance to its use in higher education (Appendix C). The most common objections are: 1) not viewing students as customers; 2) resistance to the technical language; 3) inability to see the relevance of a business approach; and 4) view TQM as a fad. These resistances will not be eased until more research is available from studies on TQM use in higher education.

Implementation of TQM in the Adult Education and Training Program will be a three-year process. Year one will focus on developing TQM leadership and instructing faculty and staff in its use. Year two will be spent in examining and defining processes. Year three will be devoted to revising curriculum.

Year One

Methodology, Evaluation, and Budget.

In order to adopt and implement the philosophy of total quality management, the individuals that are to provide leadership during this process must be identified and trained so that they will be able to initiate the changes required (Further Education Unit, 1991). The skills needed by these individuals will be:

o effective leadership
o root cause analysis
o problem solving

- coaching
- counselling
- interpersonal and communication skills
- team building and team working

To accomplish this requirement, a leadership training program will need to be developed. This program should include workshops, seminars, selected reading material, videos, guest speakers and consultants. Also included could be an visitation to Delaware County Community College.

Upon conclusion of this training, the selected leadership individuals should be able to implement the five guiding principles of TQM.

1. Creation of an appropriate climate
2. Focus placed on customer
3. Management by data/fact
4. People-based management
5. Continuous quality improvements

After leadership training has been completed, the remaining faculty and staff will be oriented to the principles of TQM. This will be provided through in-service workshops and seminars.

The required budget for year one will be: Consultant services, $2,000; workshop/seminars, $1,000; videos/literature, $500; travel, $250. No additional staff or physical plant will be needed.

Year Two

Methodology, Evaluation, and Budget.

Once leadership, faculty, and staff have been trained, the process of TQM implementation will begin. The second year will focus on examining enrollment procedures and establishing in-field research procedures.

All the processes in the enrollment procedure will be examined: intake, orientation, assessment, counseling, program assignment, and follow-up (see Appendix D). Data gathering about each process, called the Plan-Do-Check-Act cycle, will be instituted (Deming, 1986). An enrollment/training/follow-up process criteria will be outlined and in place. Top down flow charts will be developed for major processes.

The other focus of year two will be surveying the customer in order to shape the processes so that they meet the actual needs of the customers. Students and employers will be the prime customer focus, with other college officer such as registration and accounting also considered to be customers. Survey and interview questions will be written and workshops held to gather customer input for eventual process criteria for design. Mailing lists of students and employers will need to be created, maintained, and updated. A data input and storage process will need to be designed.

The work plan to accomplish the goals of year two could follow the one established by Delaware County Community College in 1991 (Heverly, 1991):

- Identify mission, customers, and suppliers
- Identify mission and its key processes and develop top down flow charts of each key process
- Identify quality characteristics for each key process and develop performance measures to access these characteristics
- Develop a data collection plan for monitoring the performance of each key process

By the end of year two, TQM should be ready for implementation. Data collection processes should be in place.

Budget requirements for year two would be: Part-time date entry clerk, $5,000 per year; duplicating services, $700; postage, $1,000.

Year Three

Methodology, Evaluation, and Budget.

Year three will involve curriculum revision as indicated by data/facts gathered from customers (students, employers, other college offices). Textbooks and materials will be reviewed and necessary revisions and changes made. Curriculum and courses of study will be reviewed for relevancy. Any changes necessary will be implemented. Using the Further Education Unit report from London, England (1991), the following criterion should be met:

- Primarily seek to improve the quality of teaching and learning strategies
- Must be flexible
- Must harness the commitment of all staff
- Learner must be involved in improving the process of teaching and learning
- Should establish the measurements of requirements and of success in order that progress can be improved

Year three budget requirements would be: Textbooks, $3,000; supplementary materials, $750; part-time data entry clerk, $5,000; part-time clerk typist, $4,000.

CONCLUSION

Through the implementation of the total quality concept, the Adult Education and Training Program will be better prepared to meet the educational needs of the workforce for the twenty-first century. The

Hoskin Planning process (Marchese, 1991) will be a useful approach in this process:

1. Vision statement
2. Goals
3. Workplans
4. Deployment
5. Execution

TQM allows for constant monitoring of education needs which easily translate to processes that meet these needs. Because of this feature, TQM will allow education to keep abreast of workplace change and respond to these changes quickly and effectively.

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APPENDIX A

GOALS AND OBJECTIVES

APPENDIX A

DEVELOPING A TOTAL QUALITY LEARNING ENVIRONMENT
ADULT EDUCATION AND TRAINING PROGRAM
MERCER COUNTY COMMUNITY COLLEGE

LONG RANGE GOAL: To create a Total Quality Learning Environment in the Adult Education and Training Program

YEAR ONE	YEAR TWO	YEAR THREE
Goal: 1. Facilitate Total Quality Leadership (TQL)	Goals: 1. Create a Total Quality Enrollment Process (TQE) 2. Institute in-field research procedures	Goal: 1. Provide Total Quality Instruction (TQI)
Objectives: 1. Provide TQM leadership training to program supervisors 2. Orient all faculty/staff to the total quality concept	Objectives: 1. Modify the intake process to ensure a positive beginning in the education process 2. Provide an orientation for all programs 3. Ensure correct placement within the education process 4. Assist in the removal of potential barriers to the education process 5. Collect data/facts pertaining to customer needs and expectations for the improvement of all education programs	Objective: 1. Offer all program courses with a total quality emphasis and approach
Methodology: o Leadership training program o Workshops, seminars, literature, videos, guest speakers, consultants o Visitations	Methodology: o Examination of the enrollment procedure o Data gathering o Flow chart preparation o Customer survey/interviews o Mailing list creation o Data input/storage process	Methodology: o Curriculum review/revision o Textbook/materials review o Courses of study review/revision
Evaluation: o Demonstrate ability to implement five guiding principles of TQM	Evaluation: o Development of data collection plan o TQM ready for implementation	Evaluation: o Relevancy to customer needs o Meets set criterion
Budget: Consultant services, $2,000 Workshop/seminars, $1,000 Videos/literature, $500 Travel, $250	Budget: Part-time data entry clerk, $5,000 per year Duplicating sevices, $700 Postage, $1,000	Budget: Textbooks, $3,000 Supplementary materials, $750 Part-time data entry clerk, $5,000 per year Part-time clerk typist, $4,000 per year

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APPENDIX B

TWELVE PRINCIPLES OF TQM

TWELVE PRINCIPLES OF TQM

1. Focus on quality
2. Quality driven
3. Continuous improvement
4. making processes work better
5. Extending the mindset
6. Discipline of information
7. Elimination of rework
8. Teamwork
9. Empowerment of people
10. Training and recognition
11. Vision
12. Leadership

APPENDIX C

KEY BENEFITS AND FRUSTRATIONS/PROBLEMS OF TQM

KEY BENEFITS AND FRUSTRATIONS/PROBLEMS OF TQM

Benefits:

1. Increased involvement of people.
2. Increased listening by staff to customers.
3. Increased efficiency.
4. Improved climate and attitudes.
5. Increased respect for data based decision making.
6. Breaking down of campus barriers.
7. Improved communication across institutional components.
8. Improved focus on institutional mission.
9. Reduced redundancies.
10. Improved cost effectiveness.

Frustrations/Problems:

1. Time requirements.
2. Unclear commitment by top leadership.
3. Aversion to change by some.
4. Difficulties in achieving a deep acceptance of TQM philosophy.
5. Difficulties in establishing effective teams.
6. Difficulties in identifying tangible results.

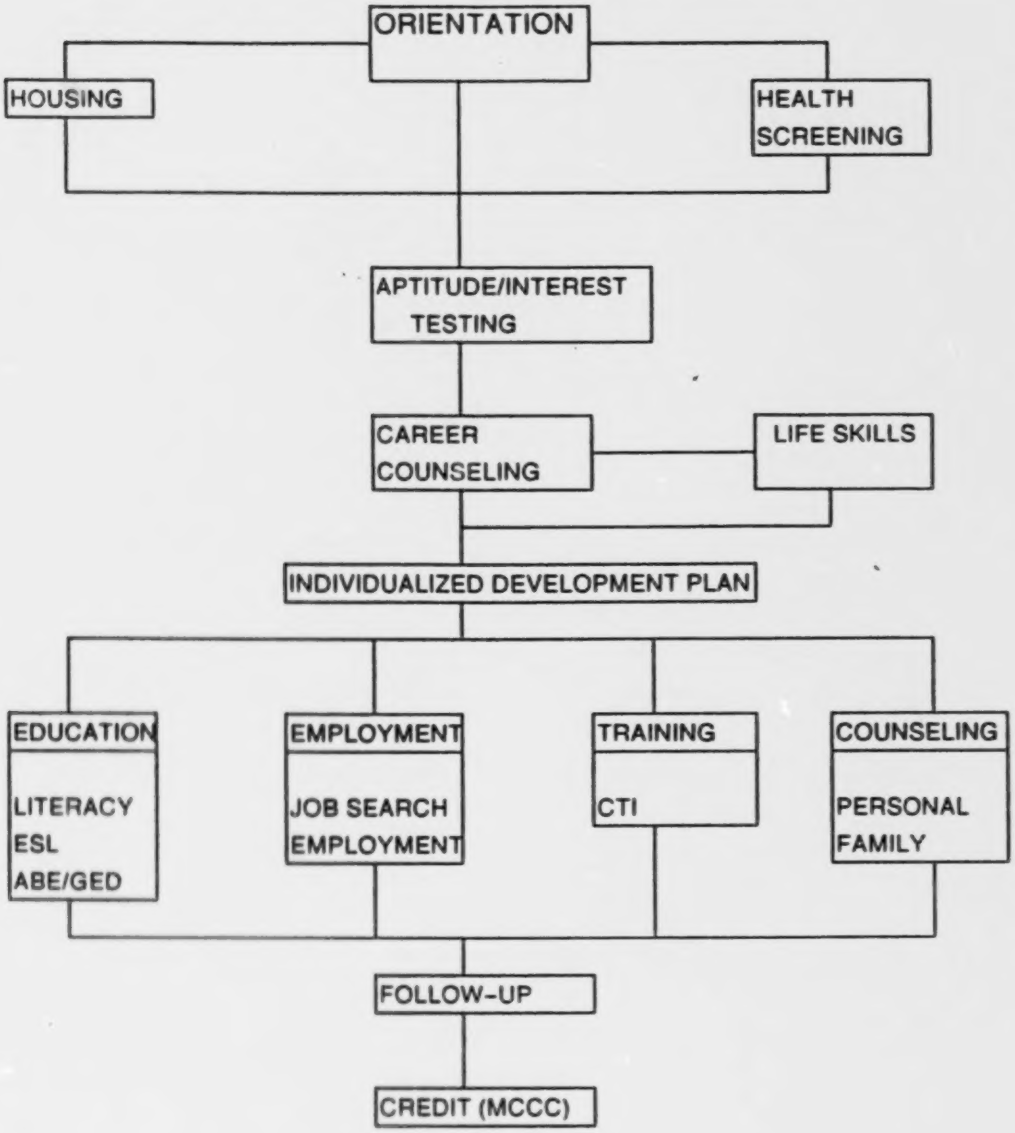
Seymour, Daniel T. TQM on Campus: What the Pioneers are Finding. ERIC ED 340 270, 1991.

APPENDIX D

ENROLLMENT PROCESS FOR THE ADULT EDUCATION AND TRAINING PROGRAM

APPENDIX D

ADULT EDUCATION AND TRAINING,


ORIENTATION
HOUSING
HEALTH SCREENING
APTITUDE/INTEREST TESTING
CAREER COUNSELING
LIFE SKILLS
INDIVIDUALIZED DEVELOPMENT PLAN
EDUCATION
LITERACY
ESL
ABE/GED
EMPLOYMENT
JOB SEARCH
EMPLOYMENT
TRAINING
CTI
COUNSELING
PERSONAL
FAMILY
FOLLOW-UP
CREDIT (MCCC)

The Development, Implementation, and Evaluation of a Model for the Review of Associate in Science Degree Programs

by

Brian C. Satterlee

A Major Applied Research Project presented in
partial fulfillment of the requirements
for the degree of Doctor of Education

Nova University
May, 1991

Abstract of a Major Applied Research Project presented
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THE DEVELOPMENT, IMPLEMENTATION, AND EVALUATION OF A MODEL FOR THE REVIEW OF ASSOCIATE IN SCIENCE DEGREE PROGRAMS

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May, 1991

Seminole Community College will begin the process of reaffirmation of accreditation with the Southern Association of Colleges and Schools by the appointment of its self-study committee in 1991. Faculty and administrators had expressed a concern that the current program review protocol was inadequate, and that a contemporary program review protocol should be developed and implemented to comply with the Southern Association of Colleges and Schools criteria for accreditation. The purpose of this Major Applied Research project was to develop, implement, and evaluate a program review protocol at Seminole Community College for an associate in science degree program.

The basic research questions provided a structure to answer issues relating to (1) have standard criteria been developed at the various states-level for the review of

associate in science degree programs; (2) what should be included in the program review protocol developed for Seminole Community College; (3) can the protocol be developed to accommodate both the Florida State Board for Community Colleges and the Southern Association of Colleges and Schools requirements for program review; and (4) can the program review protocol be successfully implemented at Seminole Community College?

The procedures followed in this research project were executed in three phases: protocol development, pilot-test of the protocol, and evaluation of the pilot-test. The protocol was developed in three steps. First, the related literature was reviewed to ascertain the findings of previous research pertinent to program review. The findings of the literature review were used to develop the elements of comparison between requests for program review protocol information solicited from twenty-two public community college systems. Second, the protocols supplied by the state community college systems were compared and analyzed to develop (1) a matrix of elements of comparison among state-level program review protocols, and (2) a list of generally accepted program review evaluative criteria. Third, the program review protocol was developed from the conceptual framework provided by the literature review and comparative analysis.

The program review protocol was implemented via pilot-test on the college's associate in science degree program in

Electronics Engineering Technology. The pilot-test was then evaluated in terms of evaluative objectivity, ease of implementation, availability of supporting documentation, and integration with both the Florida State Board of Community Colleges and the Southern Association of Colleges and Schools requirements for program review.

The conclusions of this Major Applied Research Project paralleled the research questions and were presented as a result of this study. Criteria have been developed by various states for the review of associate degree programs. The program review instrument should include three to six evaluative criteria supported with relevant documentation for each of the following sections: program purpose; program quality; program demand; program cost; projected changes in purpose, quality, demand, and cost; and conclusions and recommendations. The program review protocol incorporated both state and accrediting agency requirements and was successfully implemented at Seminole Community College.

As a result of this study, the following additional conclusions concerning the review of associate degree programs were presented. First, program review will emerge as a major educational issue during the 1990's. Second, successful program reviews are eclectically developed to meet the specific conditions of an institution. Third, the most critical factor of program review is the utilization of results. Fourth, those individuals responsible for the implementation of the recommendations should be active participants in the entire process. Fifth, program review is a political process. Opportunities exist for the unscrupulous to use the results of program review in a corrupt manner. Hence, the potential exists for the practice of program review to become detached from its intended original purpose of the improvement of program quality to becoming counterproductive to the well-being of the institution.

Recommendations were suggested as a result of this Major Applied Research Project. The program review protocol should be presented to the dean of applied technologies for possible college-wide implementation. Seminole Community College should develop and implement in-service workshops concerning the program review process for all affected instructional personnel. The program review protocol should be diffused at three levels: institutional, state, and national.

PURPOSE

To develop, implement, and evaluate a program review protocol at Seminole Community College for associate of science degree programs.

CONCEPTUAL FRAMEWORK

1. Have standard criteria been developed at the various states-level for the review of associate of science degree programs?

2. What should be included in the program review protocol developed for Seminole Community College?

3. Can the protocol be developed to accommodate both the Florida State Board for Community Colleges and the Southern Association of Colleges and Schools requirements for program review?

4. Can the program review protocol be successfully implemented at Seminole Community College?

Examples of Kinds of Criteria

Kind	Examples
mission/centrality	Consistency of program with college goals and mission.
quality of various groups and aspects	Faculty; students; curriculum; facilities; equipment; library holdings; administration.
cost	Cost/revenue relationship; benefits to the students, the college, and society; faculty; facilities; equipment; enrollment.
demand	Past, present, and projected future enrollment; demand for graduates; job opportunities for graduates; student interest; justification of need; comparative advantage to other similar programs offered in the service area; benefit to society.

Evaluative Criteria Generated from State Documents

MISSION CENTRALITY:

1. Program relationship to institutional mission.
2. Program relationship to other college programs.
3. Articulation agreements.

PROGRAM QUALITY:

1. Faculty qualifications.
2. Admissions criteria.
3. Ratings of program by current & former students, industry.
4. Specialized accreditation review results (if any).
5. Quantity, condition, and age of instructional materials, equipment, and facilities.
6. Number of students transferring to senior colleges.
7. Number of completers passing specialized examinations.
8. Program description and objectives.
9. Anticipated changes in objectives.
10. Appropriateness of course sequencing.
11. Rationale behind course sequencing, exams, & other materials.
12. Student advising practices.
13. Current support staff.
14. Special competencies of existing faculty.
15. Strengths not present in existing faculty.
16. Course syllabi.
17. Anticipated curricular changes.
18. Anticipated staff changes.
19. Faculty development plan.
20. Library resources and plan to remedy deficiencies.
21. Curricular deficiencies and plan to remedy deficiencies.
22. Program administration quality.
23. Safety and health standards.
24. Counseling and support services available.
25. Use of advisory groups.

Evaluative Criteria Generated from State Documents

PROGRAM COST:

1. Direct cost/fulltime equivalent (FTE).
2. Equipment cost/fulltime equivalent.
3. Credit hours produced (SCH).
4. Annual cost/SCH.
5. Annual number of faculty (fulltime/partime).
6. Faculty and staff costs.
7. Courses taught/term, by instructor.
8. List of current facilities and equipment.
9. Need for additional facilities and equipment.
10. Student/faculty ratio.
11. Course section size.

PROGRAM DEMAND:

1. Historic enrollment, completers, and placement.
2. Attrition/retention rate.
3. Similar program offered at nearby institutions.
4. Projected changes in program demand.

RESULTS

1. The program review instrument should include 3 to 6 evaluative criteria supported with relevant documentation for each of the following sections:

    - program purpose;
    - centrality to the institutional mission
    - program quality in terms of faculty, curriculum, instruction, facilities, equipment, and satisfaction of students, graduates, and employers of graduates;
    - program demand in terms of enrollment, placement, completers, and industry support;
    - program cost;
    - projected changes in purpose, quality, cost, and demand;
    - conclusions and recommendations.

CONCLUSIONS

1. Program review will emerge as a major educational issue during the 1990's.

2. Successful program reviews are eclectically developed to meet the specific conditions of an institution.

3. The most critical factor of program review is the utilization of results.

4. Individuals responsible for the implementation of recommendations should be active participants in the entire process.

5. Program review is a political process. Consider the mental frames and possible motivations of stakeholders.

MARP YEAR PROCESS

January 1990

Event: Develop initial conceptualization of proposal based on major institutional activity (Instructional Program Review Task Force).

Key Individual: Dr. Tamburello.

March 1990

Event: Take comprehensive examination.

May 1990

Events: Marp committee formed; initial concept introduced to Marp Chair; permission to develop first draft of proposal.

Key Individual: Dr. Groff.

July-November 1990

Events: Major revisions in draft proposal (6X):

- * shift emphasis from local to national;
- * greatly expand research base;
- * total revision to title;
- * procedures section critical;
- * MARP Proposal approved November 1990.

Key Individuals: Drs. Groff, Tamburello, and Moreton.

January-April 1991

Events: Develop MARP in chapter sequence:

- * literature review (4X);
- * results (5X--longest to develop);
- * procedures (3X);
- * background and significance (2X);
- * conclusions and recommendations (4X);
- * abstract, etc. (0X).

Key Individuals: Drs. Groff, Tamburello, and Moreton.

May 1991

Event: MARP signature page completed.

WARREN H. GROFF

Warren H. Groff is a consultant and a National Lecturer for Nova University. He taught in the public schools in Pennsylvania, served as an Assistant Dean in the College of Education at Temple University, and taught doctoral seminars in higher education, consulted for the American Board of Pediatrics and the Governor's Justice Commission of Pennsylvania, served as Vice President for Academic Affairs at a private college, was the Executive Director of a consortium involving a medical college and two universities, served as Vice President for Academic Affairs for seven years and then Director of Research and Development at North Central Technical College in Mansfield, OH, and was Dean of Academic Affairs at Shelby State Community College in Memphis, TN.

He has written extensively on the topics of leadership, human resources development, strategic planning, and economic development. He chaired the statewide Task Force on High Technology for the Chancellor of the Ohio Board of Regents in 1982-83 and also served on the OBR Telecommunications Committee. From 1978 to 1986, he chaired the Plan Development Committee of an eight county health systems agency and also served as Vice President of the 45 member Board of Directors from 1984-86. In 1984, he chaired a 44 member Consolidation Committee for School Improvement for the Board of Education for the Mansfield City Schools. He served as president of the College of Education Alumni Society of the Pennsylvania State University from July 1984 through June 1986.

He has been one of the two faculty for the week-long Snowmass Institutes on Strategic Planning for eleven years, 1980-1991. He has conducted workshops on strategic planning for the Massachusetts Board of Regents; Tennessee Board of Regents; Directors of Research, Planning, and Development of the Vocational, Technical, and Adult Education Districts in Wisconsin; Texas Association of Chief Community College Student Affairs Administrators; and the Nebraska Technical Community College Association. He has consulted with the National Center for Research in Vocational Education on selected projects. Groff assisted a hospital in a year-long strategic planning process and has conducted several strategic planning workshop for school boards associations. He has helped numerous institutions with strategic planning, in writing proposals, and accreditation activities. In the early 1980s, he helped an institution in reaffirmation of accreditation through strategic planning.

Groff has taught 69 doctoral seminars to over 1270 students throughout the U.S. for Nova University. He teaches Human Resources Development, Governance and Management, and Emergence of Vocational, Technical, and Occupational Programs in the Ed.D. Programs in Higher Education. The four two-year cycles in vocational, technical, and occupational education were: Agents of Change, 1984-85, ED 272 247; Transformational Leaders, 1986-1987, ED 290 860; Strategic Thinkers, 1988-89, ED 319 882; Restructuring Establishments, 1990-91, ED 335 519. He teaches Political Processes and Social Issues in the Ed.D. Program in Early and Middle Childhood and Leadership I and II in the Ed.D. Program in Child and Youth Studies. Leadership I begins the program and Leadership II concludes the three-year program. Groff taught leadership through contemporary communication and information technologies to a national cluster, composed of students from throughout the U.S., canada, and the Virgin Islands.

He conducted strategic planning workshops for the Office of Substance Abuse Prevention of the U.S. Department of Health and Human Services and has provided technical assistance to twenty Building Community Partnership grantees.

Groff was graduated from Millersville University with a B.S. in Ed., from The Pennsylvania State University with an M. Ed., and from Temple University with an Ed.D.

ERIC Documents

ED 186 060	Higher Education As A Catalyst to the Local Economy
ED 188 655	Planning Technical Education for the Eighties
ED 190 168	Human Resources Development in Technical Education
ED 190 179	A Model to Evaluate the Extent to Which Goals are Reached
ED 197 779	Environmental Trend Analysis & Strategic Decisions
ED 200 711	Trend Analysis as a Component of Comprehensive Planning
ED 201 030	Key Data Elements in a PME Syllogistic Model
ED 201 295	Key External Data in Strategic Decision Making
ED 201 343	Market Analysis. What Is It? How Does It Fit Into...?
ED 201 357	Technical Ed As A Catalyst: Retraining & Collaboration
ED 202 498	Shaping Society through Outcomes: Measuring Output
ED 212 946	Preparing Proactive Transformational Leaders, Cluster #34
ED 213 446	Strategic Planning: A New Role for Mg Info Systems
ED 214 555	Statewide Coordination in Technology Transfer
ED 216 654	Strategic Planning: Matching Ext Assess with Int Audit
ED 217 907	Strategic Planning of Technology Transfer
ED 218 993	Entrepreneurship through Strategic PME
ED 219 007	Building Futurism into the Institution's SP and HRD
ED 221 249	Strategic Planning for Community Services & Continuing Ed
ED 223 273	Computer Literacy: Data & Info Processing as the Core
ED 227 888	Utilizing R & D Products in SP and HRD
ED 229 591	Econ & Soc Impact of Tran from Industrial to Info Society
ED 231 453	Assisting a College's Service Area in the Transition....
ED 233 651	Strategic Planning & Mg for the Third Wave
ED 236 394	Strategic Planning for Economic Development
ED 237 129	SP & Mg for Voc-Tech Ed at the Community College Level
ED 244 668	Quality Education. What Is It? (Nova #5)
ED 247 822	Strategic Planning for Economic Development
ED 259 804	Institutional Advance & Role of Resource Dev Office (NCRD)
ED 267 665	Snowmass Institute Report, 1985
ED 272 247	Preparing Agents of Change in Voc-Tech-Occup Ed, 1984-85
ED 271 184	Leadership: Vision & Sturcture (NCRD)
ED 272 772	Perspectives on the Education & Tr System of the Future
ED 280 538	The Learning Community of the Future: Ed & Tr in 21st (AACJC)
ED 287 347	Independent Learner: Key Characteristic In Trans Ldr, 1987
ED 290 860	Preparing Transformational Leaders in VTO, 1986-87
ED 298 977	Achieving Excellence Through SP, Smowmass Report, 1988
ED 313 946	Toward 21st Century: Preparing Proactive Trans Ldr, 1989
ED 319 882	Toward 21st Century: Prep Strategic Thinkers in VTO, 1988-89
ED 327 117	Preparing Strategic Thinkers in Grad & Postgrad Education
ED 327 118	Preparing Visionary Proactive Transformational Ldrs 34,37,38
ED 327 651	High Tech-High Touch Collaboration in Helping the United States to Develop "Learning Communities of the Future."
ED 335 519	Toward the 21st Century: Preparing Strategic Thinkers in Vocational, Technical, and Occupational Education for Restructuring Establishments 1991
ED 343 484	Restructuring for the 90's...And Beyond 1992
EJ 212 639	Data as an Institutional Resource in a PME System
EJ 242 674	Key External Data Required in Strategic Decision Making
EJ 280 495	Strategic Planning of Technology Transfer
EJ 293 632	Strategic Planning - Jossey-Bass New Directions
EJ 295 399	Data Processing in the Post-Ind, Tech, Info Society, CAUSE
EJ 298 509	Education's Future Faces Four Great Challenges
EJ 312 404	Critical Mass: Education and the Economy